

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:
T.P.S.G.C./P.W.G.S.C.
Place Bonaventure, portail Sud-Est
800 rue de La Gauchetière Ouest
7 ième étage/7th Floor
Montréal
Montréal
(Québec)
H5A 1L6

SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Équipe NPSL/NBSL Team
Place Bonaventure, portail Sud-Est
800 rue de La Gauchetière Ouest
7 ième étage/7th Floor
Montréal
Montréal
Quebec
H5A 1L6

Title - Sujet NBSL-Fisn Habitat-Lapierre	
Solicitation No. - N° de l'invitation EE520-160069/A	Amendment No. - N° modif. 002
Client Reference No. - N° de référence du client EE520-16-0069	Date 2015-07-14
GETS Reference No. - N° de référence de SEAG PW-\$MTP-450-13293	
File No. - N° de dossier MTP-5-38021 (450)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2015-07-27	Time Zone Fuseau horaire Heure Avancée de l'Est HAE
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Guérinik, Naoual	Buyer Id - Id de l'acheteur mtp450
Telephone No. - N° de téléphone (514) 496-3409 ()	FAX No. - N° de FAX (514) 496-3822
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Solicitation No. - N° de l'invitation

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EE520-16-0069

Amd. No. - N° de la modif.

002

File No. - N° du dossier

MTP-5-38021

Buyer ID - Id de l'acheteur

mtp450

CCC No./N° CCC - FMS No/ N° VME

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Solicitation No. - N° de l'invitation

EE520-160103/A

Client Ref. No. - N° de réf. du client

EE520-16-0103

Amd. No. - N° de la modif.

002

File No. - N° du dossier

MTP-5-38020

Buyer ID - Id de l'acheteur

mtp450

CCC No./N° CCC - FMS No./N° VME

**Services of Consultants for Fish Habitat Compensation for Lentic Waters and Wetlands – Île Lapierre
and Pointe Théorêt
Project : R.071652.972 / R.1071652.974**

This amendment is issued to:

1. Amend the Request for Proposal
2. Amend the Submission Requirements and Evaluation
3. Amend the Project Brief
4. Amend the Description of Services and Additional Services
5. Amend the Price Proposal Form
6. Add the document : Doing Business – Québec Region

Documents 1 to 5 are reissued in their entirety. Modifications are underlined.

All other clauses and conditions remain unchanged.

Questions and Answers will be provided shortly.

**Services of Consultant for the Fish Habitat Compensation for Lentic Waters and Wetlands,
Île Lapierre and Pointe Théoret
Project: R.071652.972/R.071652.974**

REQUEST FOR PROPOSAL (RFP)

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Team Identification Format (Appendix A - Published out of sequence)

Declaration/Certifications Form (Appendix B - Published out of sequence)

Price Proposal Form (Appendix C - Published out of sequence)

Non Disclosure Agreement (Annex D - Published out of sequence)

Compensation projects for the loss of wetlands and fish habitats (Annex E – Published out of sequence as an attachment)

Doing Business with Québec (Annex F - Published out of sequence as an attachment)

SUPPLEMENTARY INSTRUCTIONS TO PROPONENTS (SI)

SI1 INTRODUCTION

1. Public Works and Government Services Canada (PWGSC) intends to retain an individual consulting firm or joint venture to provide the professional services for the project as set out in this Request for Proposal (RFP).
2. This is a single phase selection process. The strict time frames to implement this project do not allow sufficient time to conduct the usual two phases selection process.
3. Proponents responding to this RFP are requested to submit a full and complete proposal. The proposal will cover not only the qualifications, experience and organization of the proposed Consultant Team, but also the detailed approach to the work, and the pricing and terms offered. A combination of the technical and price of services submissions will constitute the proposal.

SI2 PROPOSAL DOCUMENTS

1. All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are hereby incorporated by reference into and form part of this solicitation and any resultant contract.

All instructions, general terms, conditions and clauses identified in the RFP by number, date and title, are set out in the Standard Acquisition Clauses and Conditions Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

2. The following are the proposal documents:

(a) Supplementary Instructions to Proponents (SI);

R1410T (~~2015-04-04~~2015-07-03), General Instructions (GI) – Architectural and/or Engineering Services – Request for Proposal; Submission Requirements and Evaluation (SRE);

(b) the general terms, conditions and clauses, as amended, identified in the Agreement clause;

(c) Project Brief / Terms of Reference;

(d) the document entitled "Doing Business with Québec Area";

(e) any amendment to the solicitation document issued prior to the date set for receipt of proposals; and

(f) the proposal, Declaration/Certifications Form and Price Proposal Form.

3. Submission of a proposal constitutes acknowledgment that the Proponent has read and agrees to be bound by these documents.

SI3 BIDDERS' CONFERENCE

A bidders' conference will be held at Place Bonaventure, 800 rue de la Gauchetière Ouest, Montréal on Tuesday July 7th, 2015. The conference will begin at 3:00 p.m. EDT, in room Halifax, 7th floor, South-East Portal. The scope of the requirement outlined in the bid solicitation will be reviewed during the conference and questions will be answered. It is recommended that bidders who intend to submit a bid attend or send a representative.

Bidders are requested to communicate with the Contracting Authority with email address:

QueMontrealNBSL.QueMontrealNPSL@pwgsc-tpsgc.gc.ca

before the conference to confirm attendance. Bidders should provide, in writing, to the Contracting Authority, the name(s) of the person(s) who will be attending and a list of issues they wish to table no later than July 2nd.

Any clarifications or changes to the bid solicitation resulting from the bidders' conference will be included as an amendment to the bid solicitation. Bidders who do not attend will not be precluded from submitting a bid.

SI4 QUESTIONS OR REQUEST FOR CLARIFICATION

Questions or requests for clarification during the solicitation period must be submitted in writing to

QueMontrealNBSL.QueMontrealNPSL@pwgsc-tpsgc.gc.ca

to the Contracting Authority named on the RFP - Page 1 as early as possible. Enquiries should be received no later than 10 working days prior to the closing date identified on the front page of the Request for Proposal. Enquiries received after that date may not be answered prior to the closing date of the solicitation.

SI5 CANADA'S TRADE AGREEMENTS

This procurement is subject to the provisions of the North American Free Trade Agreement (NAFTA), the World Trade Organization - Agreement on Government Procurement (WTO-AGP). The Agreement on Internal Trade does not apply because engineering services are specifically excluded.

SI6 CERTIFICATIONS**1. Integrity Provisions - Associated Information**

By submitting a proposal, the Proponent certifies that the Proponent and its Affiliates are in compliance with the provisions as stated in Section GI1 Integrity Provisions - Proposal of R1410T (2015-04-01) General Instructions (GI) – Architectural and/or Engineering Services – Request for Proposal. The associated information required within the Integrity Provisions will assist Canada in confirming that the certifications are true.

2. Federal Contractors Program for Employment Equity - Proposal Certification

By submitting a proposal, the Proponent certifies that the Proponent, and any of the Proponent's members if the Proponent is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](#)" list

(http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/list/inelig.shtml) available from Employment and Social Development Canada (ESDC) - Labour's website.

Canada will have the right to declare a proposal non-responsive if the Proponent, or any member of the Proponent if the Proponent is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Agreement for default if a Consultant, or any member of the Consultant if the Consultant is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Agreement.

The Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification (see Appendix B - Declaration/Certifications Form), before contract award. If the Proponent is a Joint Venture, the Proponent must provide the Contracting Authority with a completed Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

SI7 WEBSITES

The connection to some of the Web sites in the RFP is established by the use of hyperlinks. The following is a list of the addresses of the Web sites:

Employment Equity Act

<http://laws-lois.justice.gc.ca/eng/acts/E-5.401/index.html>

Federal Contractors Program (FCP)

http://www.labour.gc.ca/eng/standards_equity/eq/emp/fcp/index.shtml

Certificate of Commitment to Implement Employment Equity form LAB 1168

<http://www.servicecanada.gc.ca/cgi-bin/search/eforms/index.cgi?app=profile&form=lab1168&dept=sc&lang=e>

Code of Conduct for Procurement

<http://www.tpsgc-pwgsc.gc.ca/app-acq/cndt-cndct/contexte-context-eng.html>

~~Consent to a Criminal Record Verification (PWGSC-TPSGC 229 form)~~

~~<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/formulaires-forms-eng.html>~~

Lobbying Act

<http://laws-lois.justice.gc.ca/eng/acts/L-12.4/?noCookie>

Contracts Canada

<https://buyandsell.gc.ca/>

Supplier Registration Information

<https://srisupplier.contractsCanada.gc.ca>

Consultant Performance Evaluation Report Form

<http://www.tpsgc-pwgsc.gc.ca/app-acq/forms/documents/2913-1.pdf>

Canadian economic sanctions

<http://www.international.gc.ca/sanctions/index.aspx?lang=eng>

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National Joint Council (NJC) Travel Directive

<http://www.njc-cnm.gc.ca/directive/travel-voyage/index-eng.php>

TERMS, CONDITIONS AND CLAUSES

AGREEMENT

1. The Consultant understands and agrees that upon acceptance of the offer by Canada, a binding Agreement shall be formed between Canada and the Consultant and the documents forming the Agreement shall be the following:
 - (a) the Front Page and this Agreement clause;
 - (b) the General Terms, Conditions and Clauses, as amended, identified as:
 - R1210D (2015-07-03~~2015-04-04~~), General Condition (GC) 1 - General Provisions – Architectural and/or Engineering Services
 - R1215D (2014-06-26), General Condition (GC) 2 - Administration of the Contract
 - R1220D (2015-02-25), General Condition (GC) 3 - Consultant Services
 - R1225D (2015-04-01), General Condition (GC) 4 - Intellectual Property
 - R1230D (2015-02-25), General Condition (GC) 5 - Terms of Payment
 - R1235D (2011-05-16), General Condition (GC) 6 - Changes
 - R1240D (2011-05-16), General Condition (GC) 7 - Taking the Services Out of the Consultant's Hands, Suspension or Termination
 - R1245D (2012-07-16), General Condition (GC) 8 - Dispute Resolution
 - R1250D (2015-02-25), General Condition (GC) 9 - Indemnification and Insurance
 - Supplementary Conditions
 - Agreement Particulars
 - (c) Project Brief / Terms of Reference;
 - (d) the document entitled "Doing Business with Québec Area";
 - (e) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
 - (f) the proposal, the Declaration/Certifications Form and the Price Proposal Form.
2. The documents identified above by title, number and date are hereby incorporated by reference into and form part of this Agreement, as though expressly set out herein, subject to any other express terms and conditions herein contained.

The documents identified above by title, number and date are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual, issued by Public Works and Government Services Canada (PWGSC). The SACC Manual is available on the PWGSC Web site: <https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>
3. If there is a discrepancy between the wording of any documents that appear on the following list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list;
 - (a) any amendment or variation in the Agreement that is made in accordance with the terms and conditions of the Agreement;
 - (b) any amendment to the solicitation document incorporated in the Agreement before the date of the Agreement;
 - (c) this Agreement clause;
 - (d) Supplementary Conditions;
 - (e) General Terms, Conditions and Clauses;
 - (f) Agreement Particulars;
 - (g) Project Brief / Terms of Reference;
 - (h) the document entitled "Doing Business with Québec ";
 - (i) the proposal.

SUPPLEMENTARY CONDITIONS (SC)

SC1 SECURITY REQUIREMENT

There is no security requirement applicable to this Agreement.

SC 2 LANGUAGE REQUIREMENTS

Use the following in Agreements where the consultant must be capable to provide services in both official languages.

1. Communication between Canada and the Consultant shall be in the language of choice of the Consultant Team, which shall be deemed to be the language of the Consultant's proposal.
2. The Consultant's services during construction tender call (such as addenda preparation, tenderers' briefing meetings, technical answers to questions by bidders, including translation of bidder's questions) shall be provided expeditiously in both languages, as necessary.
3. The Consultant's services during construction shall be provided in the language of choice of the Contractor. The successful Contractor will be asked to commit to one or other of Canada's official languages upon award of the Construction Contract and, thereafter construction and contract administration services will be conducted in the language chosen by the Contractor.
4. Other required services in both of Canada's official languages (such as construction documentation) are described in detail in the Project Brief.
5. The Consultant Team, including the Prime Consultant, Sub-Consultants and Specialists Consultants shall ensure that the services being provided in either language shall be to a professional standard.

SC 3 AUTHORITIES

3.1 Agreement Authority

The Agreement Authority for the Agreement is:

Mrs Naoual Guérinik
Supply specialist
Public Works and Government Services Canada
Quebec Region
Place Bonaventure, South-East Portal
800 de La Gauchetière Street West, Suite 7300
Montreal, Quebec H5A 1L6

Telephone: (514) 496-3409

Facsimile: (514) 496-3822

E-mail: QueMontrealNBSL.QueMontrealNPSL@pwgsc-tpsgc.gc.ca

The Agreement Authority is responsible for the management of the Agreement and any changes to the Agreement must be authorized in writing by the Agreement Authority. The Consultant must not perform work in

excess of or outside the scope of the Agreement based on verbal or written requests or instructions from anybody other than the Agreement Authority.

3.2 Project Authority

The Project Authority for the Agreement is:

Name: *(to be completed upon Agreement award)*

Title:

Address:

Telephone :

Facsimile:

E-mail address:

The Project Authority is the representative of the department or agency for whom the Work is being carried out under the Agreement and is responsible for all matters concerning the technical content of the Work under the Agreement. Technical matters may be discussed with the Technical Authority; however, the Technical Authority has no authority to authorize changes to the Term of Reference. Changes to the Terms of Reference can only be made through an agreement amendment issued by the Agreement Authority.

3.3 Consultant's Representative

Name:

Title:

Organization:

Address:

Telephone:

E-mail address:

SC4 NON-DISCLOSURE AGREEMENT

The Consultant must obtain from its employee(s) or subcontractor(s) the completed and signed non-disclosure agreement, attached at Annex C, and provide it to the Project Authority before they are given access to information by or on behalf of Canada in connection with the Work.

SC 5 FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - DEFAULT BY THE CONSULTANT

The Consultant understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Consultant and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the contract. If the AIEE becomes invalid, the name of the Consultant will be added to the "FCP Limited Eligibility to Bid" list. The imposition of such a sanction by ESDC will constitute the Consultant in default as per the terms of the contract.

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AGREEMENT PARTICULARS

The Agreement Particulars will be issued at time of award of contract and will identify the fee to be paid to the Consultant for the services determined in the Price Proposal Form.

SUBMISSION REQUIREMENTS AND EVALUATION

SRE 1 GENERAL INFORMATION

1.1 Reference to the Selection Procedure

An 'Overview of the Selection Procedure' can be found in R1410T General Instructions to Proponents (GI3).

1.2 Calculation of Total Score

For this project the Total Score will be established as follows:

Technical Rating x 80% =	Technical Score (Points)
<u>Price Rating x 20%</u>	= <u>Price Score (Points)</u>
Total Score	= Max. 100 Points

SRE 2 PROPOSAL REQUIREMENTS

2.1 Requirement for Proposal Format

The following proposal format information should be implemented when preparing the proposal.

- Submit one (1) bound original plus **five (5)** bound copies of the proposal
- Paper size should be – 216 mm x 279 mm (8.5" x 11")
- Minimum font size – 11 point Times or equal
- Minimum margins – 12 mm right, left, top, and bottom
- Double-sided submissions are preferred
- One (1) 'page' means one side of a 216 mm x 279 mm (8.5" x 11") sheet of paper
- 279 mm x 432 mm (11" x 17") fold-out sheets for spreadsheets, organization charts, etc. will be counted as two pages
- The proposal should follow the order established in the Request for Proposal SRE section

2.2 Specific Requirements for Proposal Format

The maximum number of pages (including text and graphics) to be submitted for the Rated Requirements under SRE 3.2 is thirty-five (35) pages.

The following are not included in the page limitation mentioned above:

- Covering letter
- Consultant Team Identification (Appendix A)
- Declaration/Certifications Form (Appendix B)
- Code of Conduct Certifications
- Front page of the RFP
- Front page of revision(s) to the RFP
- Price Proposal Form (Appendix C)

Consequence of non-compliance: any pages which exceed the above page limitation and any other attachments will be extracted from the proposal and will not be forwarded to the PWGSC Evaluation Board members for evaluation.

SRE 3 SUBMISSION REQUIREMENTS AND EVALUATION

3.1 MANDATORY REQUIREMENTS

Failure to meet the mandatory requirements will render the proposal as non-responsive and no further evaluation will be carried out.

3.1.1 Licensing, Certification or Authorization

The Principal Proponent shall be a firm licensed by an order, corporation or professional association to provide the necessary professional services to the full extent that may be required by provincial or territorial law in the province of Québec.

3.1.2 Consultant Team Identification

The consultant team to be identified must include the following:

Proponent (prime consultant)

Experts in engineering or biology or landscape architecture, specializing in integrated ecosystem management

Key Sub-Consultants / Specialists –

Biologists, specialist in fish habitat development, specialist in herpetology (habitat development), specialist in botany for freshwater fish habitat development and wetland ecology, specialist in environmental assessment as pertains to the *Canadian Environmental Assessment Act* and the *Québec Environment Quality Act* (including applications for certificates of authorization under the latter).

Landscape architect, specialist in phytotechnology development and ecosystem development

Civil engineers, specializing in municipal infrastructure

Engineers, specializing in hydrology

Biologist, specialist in environment or engineering, specialist in contaminated soil management

Land surveyor, specialist in topographic and bathymetric plans

Archaeologist, specialist in Québécois historical archeology and the paleohistory of Québec

All other appropriate specialists for the project

If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Information required – name of firm, key personnel to be assigned to the project. For the prime consultant, indicate current license and/or how you intend to meet the provincial or territorial licensing requirements. In the case of a joint venture identify the existing or proposed legal form of the joint venture (refer to R1410T General Instructions to Proponents, GI9 Limitation of Submissions).

An example of an acceptable format (typical) for submission of the team identification information is provided in Annex A.

3.1.3 Declaration/Certifications Form

Proponents must complete, sign and submit the following:
Appendix B, Declaration/Certifications Form as required.

3.1.4 Integrity Provisions – Associated Information

Proponents who are incorporated, including those submitting proposals as a joint venture, must provide a complete list of names of all individuals who are currently directors of the Proponent. Proponents submitting proposals as sole proprietorship, including those submitting proposals as a joint venture, must provide the name of the owner. Proponents submitting proposals as societies, firms, or partnerships do not need to provide lists of names. If the required names have not been received by the time the evaluation of proposals is completed, Canada will inform the Proponent of a time frame within which to provide the information. Failure to provide the names within the time frame specified will render the bid non-responsive. Providing the required names is a mandatory requirement for contract award.

3.2 RATED REQUIREMENTS

3.2.1 Achievements of Proponent on Projects

Describe the Proponent's accomplishments, achievements and experience as prime consultant on projects.

Select a **maximum** of 2 projects undertaken within the last 8 years. Joint venture submissions are not to exceed the maximum number of projects. Only the first 2 projects listed in sequence will receive consideration and any others will receive none as though not included.

Information that should be supplied:

- clearly indicate how this project is comparable/relevant to the requested project.
- brief project description and intent. Narratives should include a discussion of design philosophy / approach to meet the intent, design challenges and resolutions.
- budget control and management – i.e. contract price & final construction cost – explain variation
- project schedule control and management – i.e. initial schedule and revised schedule – explain variation
- client references – name, address, phone and fax of client contact at working level – references may be checked
- names of key personnel responsible for project delivery
- awards received

The Proponent (as defined in R1410T General Instructions to Proponents, GI2 Definitions) must be knowledgeable about the above projects. Past project experience from entities other than the Proponent will not be considered in the evaluation unless these entities form part of a joint venture Proponent.

Please indicate those projects which were carried out in joint venture and the responsibilities of each of the involved entities in each project.

3.2.2 Achievements of Key Sub-consultants and Specialists on Projects

Describe the accomplishments, achievements and experience either as prime consultant or in a sub-consultant capacity on projects. If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Select a **maximum** of 3 projects undertaken within the last 8 years ~~per~~^{for} all key sub-consultant or specialist. Only the first 3 projects listed in sequence (per key sub-consultant or specialist) will receive consideration and any others will receive none as though not included.

Information that should be supplied:

- Clearly indicate how this project is comparable/relevant to the requested project
- Brief project description and intent (Narratives should include a discussion of design philosophy / approach to meet the intent, design challenges and resolutions)
- Budget control and management
- Project schedule control and management
- Client references – name, address, phone and fax of client contact at working level – references may be checked
- Names of key personnel responsible for project delivery
- Awards received

3.2.3 Achievements of Key Personnel on Projects

Describe the experience and performance of key personnel to be assigned to this project regardless of their past association with the current proponent firm. This is an opportunity to emphasize the strengths of the individuals on the team, to recognize their past responsibilities, commitments and achievements.

Information that should be supplied for each key personnel:

- Professional accreditation and/or degree(s)
- Accomplishments/achievements/awards
- Relevant experience, expertise, number of years experience
- Role, responsibility and degree of involvement of individual in past projects

Key Personnel	Factor
Principal Proponent	
Project Manager – an engineer who is a member of the OIQ, a landscape architect who is a member of the AAPQ or the CSLA, or a biologist. Minimum of 15 years of experience coordinating multi-disciplinary teams	5
Principal Proponent or Sub-Consultant	
Design Supervisor – an engineer who is a member of the OIQ or a landscape architect who is a member of the AAPQ or the CSLA. Minimum of 15 years of relevant experience in design and producing construction documents (RS3 and RS4)	4
Project Development Supervisor – an engineer who is a member of the OIQ or a landscape architect who is a member of the AAPQ or the CSLA. Minimum of 15 years of relevant experience in construction and contracts (RS6)	4
Principal Proponent Specialist or Sub-Consultant	
Biologist – a specialist in ichthyology and fish habitat development with a minimum of 5	3

years of experience in a field related to the project (fish habitat in fresh and lentic waters)	
Engineer – a hydrology specialist who is a member of the OIQ with 5 years of experience working with a multi-disciplinary team on similar fish habitat compensation projects in rivers or lacustrine environments	3
Biologist – a specialist in botany with 5 years of experience working with aquatic, riparian and wetland plants and having participated in the development of a riparian strip, freshwater fish habitat and/or wetlands	3
Biologist – a specialist in herpetology with 5 years of experience working with at risk snake species (for the Île Lapierre project)	2
Landscape Architect – a specialist in phytotechnology development and ecosystem development who is a member of the AAPQ or the CSLA and who has a minimum of 10 years of relevant experience	2
Biologist – specialist in ornithology with 5 years of experience on wetland development projects for migratory birds	2
Specialist in environmental assessment as pertains to the federal environmental assessment act and the provincial act on water quality	2
GRAND TOTAL FOR 3.2.2	30 points

3.2.4 Understanding of the Project

The proponent should demonstrate understanding of the goals of the project, the functional/technical requirements, the constraints and the issues that will shape the end product.

Information that should be supplied:

- Functional and technical requirements
- Broader goals (federal image, sustainable development, sensitivities)
- Relationship between this commission and any earlier studies completed for PWGSC
- Significant issues, challenges and constraints
- Project schedule and cost (review schedule and cost information and assess risk management elements that may affect the project)
- Client User's philosophies and values

3.2.5 Scope of Services

The proponent should demonstrate capability to perform the services, meet project challenges and provide a plan of action.

Information that should be supplied:

- Scope of Services – detailed list of services
- Work Plan – detailed breakdown of work tasks and deliverables
- Project schedule – proposed major milestone schedule
- Risk management strategy

3.2.6 Management of Services

The Proponent should describe how he /she proposes to perform the services and meet the constraints; how the services will be managed to ensure continuing and consistent control as well as production and communication efficiency; how the team will be organized and how it will fit in the existing structure of the firms; how the team will

be managed. The proponent is also to identify sub-consultant disciplines and specialists required to complete the consultant team.

If the Proponent proposes to provide multi-disciplinary services which might otherwise be performed by a sub-consultant, this should be reflected here.

Information that should be supplied:

- Confirm the makeup of the full project team including the names of the consultant, sub-consultants and specialists and their role on the project.
- Organization chart with position titles and names (Consultant team). Joint Venture business plan, team structure and responsibilities, if applicable
- What back-up will be committed
- Profiles of the key positions (specific assignments and responsibilities)
- Outline of an action plan of the services with implementation strategies and sequence of main activities
- Reporting relationships
- Communication strategies
- Response time (demonstrate how the response time requirements will be met)

3.2.7 Design Philosophy / Approach / Methodology

The proponent should elaborate on aspects of the project considered to be a major challenge, which will illustrate design philosophy / approach / methodology. This is an opportunity for the Proponent to state the team's overall design philosophy as well as their approach to resolving design issues and, moreover, to focus on the unique aspects of the current project.

Information that should be supplied:

- Design Philosophy / Approach / Methodology
- Description of major challenges and how your team's approach will be applied to these particular challenges

3.3 EVALUATION AND RATING

In the first instance, price envelopes will remain sealed and only the technical components of the proposals which are responsive will be reviewed, evaluated and rated to establish Technical Ratings by a PWGSC Evaluation Board in accordance with the following:

Criterion	Weight Factor	Rating	Weighted Rating
Achievements of Proponent	2.0	0 - 10	0 - 20
Achievements of Key Sub-consultants / Specialists	1.5	0 - 10	0 - 15
Achievements of Key Personnel on Projects	2.0	0 - 10	0 - 20
Understanding of the Project	1.5	0 - 10	0 - 15
Scope of Services	1.0	0 - 10	0 - 10
Management of Services	1.0	0 - 10	0 - 10
Design Philosophy / Approach / Methodology	1.0	0 - 10	0 - 10
Technical Rating	10.0		0 - 100

Generic Evaluation Table

PWGSC Evaluation Board members will evaluate the strengths and weaknesses of the Proponent's response to the evaluation criteria and will rate each criterion with even numbers (0, 2, 4, 6, 8 or 10) using the generic evaluation table below.

	INADEQUATE	WEAK	ADEQUATE	FULLY SATISFACTORY	STRONG
0 point	2 points	4 points	6 points	8 points	10 points
Did not submit information which could be evaluated	Lacks complete or almost complete understanding of the requirements	Has some understanding of the requirements but lacks adequate understanding in some areas of the requirements	Demonstrates a good understanding of the requirements	Demonstrates a very good understanding of the requirements	Demonstrates an excellent understanding of the requirements
	Weaknesses cannot be corrected	Generally doubtful that weaknesses can be corrected	Weaknesses can be corrected	No significant weaknesses	No apparent weaknesses
	Proponent do not possess qualifications and experience	Proponent lacks qualifications and experience	Proponent has an acceptable level of qualifications and experience	Proponent is qualified and experienced	Proponent is highly qualified and experienced
	Team proposed is not likely able to meet requirements	Team does not cover all components or overall experience is weak	Team covers most components and will likely meet requirements	Team covers all components – some members have worked successfully together	Strong team – has worked successfully together on comparable projects
	Sample projects not related to this requirement	Sample projects generally not related to this requirement	Sample projects generally related to this requirement	Sample projects directly related to this requirement	Leads in sample projects directly related to this requirement
	Extremely poor, insufficient to meet performance requirements	Little capability to meet performance requirements	Acceptable capability, should ensure adequate results	Satisfactory capability, should ensure effective results	Superior capability, should ensure very effective results

To be considered further, proponents **must** achieve a minimum Technical Rating of fifty (50) points out of the hundred (100) points available as specified above.

No further consideration will be given to proponents not achieving the pass mark of fifty (50) points.

SRE 4 PRICE OF SERVICES

All price proposal envelopes corresponding to responsive proposals which have achieved the pass mark of fifty (50) points will be opened upon completion of the technical evaluation. An average price is determined by adding all the price proposals together and dividing the total by the number of price proposals being opened.

All price proposals which are greater than twenty-five percent (25%) above the average price will be set aside and receive no further consideration.

The remaining price proposals are rated as follows:

- A. The lowest price proposal receives a Price Rating of 100.
- B. The second, third, fourth and fifth lowest prices receive Price Ratings of 80, 60, 40, and 20, respectively. All other price proposals receive a Price Rating of 0.
- C. On the rare occasions where two (or more) price proposals are identical, the matching price proposals receive the same rating and the corresponding number of following ratings are skipped.

The Price Rating is multiplied by the applicable percentage to establish the Price Score.

SRE 5 TOTAL SCORE

Total Scores will be established in accordance with the following:

Rating	Possible Range	% of Total Score	Score (Points)
Technical Rating	0 - 100	80	0 - 80
Price Rating	0 - 100	20	0 - 20
Total Score		100	0 - 100

The Proponent receiving the highest Total Score is the first entity that the Evaluation Board will recommend for the provision of the required services. In the case of a tie, the Proponent submitting the lower price for the services will be selected.

SRE 6 SUBMISSION REQUIREMENTS – CHECKLIST

The following list of documents and forms is provided with the intention of assisting the Proponent in ensuring a complete submission. The Proponent is responsible for meeting all submission requirements.

Please follow the detailed instructions in R1410T General Instructions to Proponents, GI16 Submission of Proposal. Proponents may choose to introduce their submissions with a cover letter.

Team Identification	(see typical format in Appendix A)
Declaration/Certifications Form	– completed and signed (form provided in Appendix B)
Integrity Provisions	– Associated Information (list of directors / owners)
Proposal	– one (1) original plus five (5) bound copies
Front page of RFP	
Front page(s) of any solicitation amendment	

In a separate envelope:

Price Proposal form	– one (1) completed copy submitted in a separate envelope.
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PROJECT BRIEF

The Project Brief is divided into two sections:

- **Description of Project (DP)**
- **Description of Services (DS)**

Project Administration
Required Services
Additional Services

For standards relating to the service provisions herein please refer to the document "Doing Business with SAG." The requirements of the standards that apply to these services must be adhered to.

DESCRIPTION OF PROJECTS

DP 1 PROJECT INFORMATION

Public Works and Government Services Canada (PWGSC) intends to retain a **firm specialized in integrated ecosystem management, with expertise in engineering, biology and landscape architecture** for the provision of the services required, including, but not limited to, delivery of two sets of drawings and specifications for these two construction projects.

1.1 PWGSC Project Title

Île Lapierre: Fish habitat compensation for lentic waters and wetlands – Île Lapierre

Pointe Théoret: Fish habitat compensation for lentic waters and wetlands – Pointe Théoret

1.2 Project Location:

Île Lapierre: Island located in the Rivière des Prairies, to north of Montréal Island (Rivière-des-Prairies-Pointe-aux-Trembles borough), approximately 200 meters downstream from the Olivier-Charbonneau Bridge and east of the Autoroute 25 bridge (lat. 45°38'10" N, long. 73°36'42" W).

Pointe Théoret: Point forming part of the Cap-Saint-Jacques regional park, located to the south of Île Bizard. Île Bizard is located to the southwest of Île Laval and Montréal Island, between Lac des Deux Montagnes and Rivière des Prairies (lat. 45°28'11"N, long. 73°54'6"W).

1.3 PWGSC Project Number:

Lapierre Project: R.071652.972 / Théoret Project: R.071652.974

1.4 Client / User:

Infrastructure Canada (INFC)

1.5 Departmental Representative:

To be announced after adjudication of contract.

1.6 PWGSC Project Manager:

To be announced after adjudication of contract.

DP 2 PROJECT IDENTIFICATION

2.1. Description of Work

The construction of a New Bridge for the St. Lawrence (NBSL) will cause losses in lentic and lotic water fish habit, wetlands and part of a migratory bird sanctuary.

A review of different compensation projects was carried out in order to select ones to offset losses incurred as a result of the project. Infrastructure Canada (INFC), the federal department responsible for this major NBSL project, has selected a total of four projects to offset these losses, including the Île Lapierre and Pointe Théoret projects. Other projects have been selected to compensate for the loss of fish habitat in flowing waters and the loss of part of the migratory bird sanctuary; these projects are part of a mandate other than that which is described in this document.

The main ecological objectives of these projects include creating new fish habitats in lentic waters or improving existing ones – including increasing the area of spawning grounds in floodplains – and creating or diversifying wetlands to increase habitat provision.

For these two sites, INFC seeks development projects that, upon completion, will be stable over time and not require any maintenance.

2.1.1 Description – Île Lapierre Project

INFC intends to create a marsh on the central and eastern parts of Île Lapierre (along the Rivière des Prairies, north of Montréal Island) by restoring a wetland and a lentic water fish habit that was backfilled in the eighties. The installation of an inlet channel in the northwest and northeast of the basin (or, alternatively, an underground pipe) is planned to connect the marsh and river, thus generating water flow and ensuing a constant level of water throughout the year.

Repairs to the road bridge leading to the island and the bridge's approaches are also planned.

In terms of ecological objectives, the Île Lapierre project seeks to create spawning, fry rearing and feeding habitat for fish in lentic waters and to develop a wetland – both of which shall be permanent and stable. The marsh and inlet channel must be such that they maintain the movement of water and fish during the low-water season. Note: The project must also incorporate the City of Montréal's plans for the island (see DP 3 – Project Background).

Work required for the project comprises, but is not limited to:

- Repairs to the existing road bridge;
- Excavation of backfill material (approximately 37,500 m³) to recreate a depression;
- Excavation to shape the new marsh and the adjacent floodplains (total area of approximately 15,000 m² for these wetland and aquatic habitats);
- Excavation of remove backfill material to create inlet channels or install an underground pipe (area of approximately 560 m² for each channel/pipe);
- Revegetation of banks and floodplains by planting native species (trees, shrubs, herbs and rooted, submerged, floating or dewatered aquatic plants) adapted to local conditions; and
- Implementation of protection measures and development of a riprap zone (hibernacula) for brown snakes.

Note: The project must also incorporate the City of Montréal's plans, both present and future, for the island (see DP 3 – Project Background).

Services required for the project comprise, but are not limited to (see RS and AS):

- Project analysis and understanding;
- Design concepts;
- Drawings and specifications (Preliminary Design and Construction Documents);
- Evaluation of construction costs;
- Services during the tendering period;
- Site monitoring (permanent and administrative follow-up);
- Land surveys;
- Bathymetric surveys;
- Hydraulics study;
- Archaeological potential study and exploratory surveys;
- Soil characterization (to be completed); and
- Application for certificate of authorization.

2.1.2 Description – Pointe Théoret Project

INFC also intends to open up an existing marsh located on Pointe Théoret (on Île Bizard to the northwestsouthwest of Montréal Island) by improving its connection to the Rivière des Prairies which will require clearing and enlarging the existing inlet channel. It should be noted that this link must be active during low-water periods to avoid the pond drying out.

A culvert passing beneath the access road to the point is also planned to ensure the free flow of water and provide freshwater fish with access to the channel and marsh (for more information see Appendix).

In terms of ecological objectives, the Pointe Théoret project seeks to increase the area of spawning, fry rearing and feeding habitats for fish in lentic waters, to revitalize the wetland by ensuring the constant presence of water and restoring adequate vegetation cover (gains in biogeochemical functions), and, thus, to restore and improve habitat conditions for herpetofauna, avifauna and mammals in general.

Work required for the project comprises, but is not limited to:

- Excavation of backfill material to clear, widen and re-profile the inlet channel (area of approximately 250 m²);
- Building a culvert;
- Excavation to remove backfill material in order to re-profile the marsh, if needed; and
- Improving existing shoreline vegetation by planting a variety of native plants (trees, shrubs, herbs and rooted, submerged, floating or dewatered aquatic plants) and revegetation of denuded zones (channel banks and still water zone) with appropriate species.

Services required for the project comprise, but are not limited to (see RS and AS):

- Project analysis and understanding;
- Design concepts;
- Drawings and specifications (Preliminary Design and Construction Documents);
- Evaluation of construction costs;

- Services during the tendering period;
- Site monitoring (permanent and administrative follow-up);
- Land surveys;
- Bathymetric surveys;
- Hydraulics study;
- Archaeological potential study and exploratory surveys;
- Soil characterization; and
- Application for certificate of authorization.

2.2 Cost

For the Île Lapierre compensation project, Class D construction costs are an estimated \$2,400,000 (excludes taxes but includes construction contingencies).

For the Pointe Théoret project, Class D construction costs are an estimated \$220,000 (excludes taxes but includes construction contingencies).

2.3 Schedule

Île Lapierre Project:

The final completion date for delivery of all the professional services described in this request for proposals will be sometime in **September 2017**.

Major project milestones:

Mandate award: ~~September~~October 2015
 Completion of drawings and specifications: May 2016
 Public call to tender: Summer 2016
 Construction contract award: August 2016
 Construction period: Autumn 2016 / spring 2017
 Provisional acceptance period: June 2017
 Final acceptance period: September 2017

Pointe Théoret Project:

The final completion date for delivery of all the professional services described in this request for proposals will be sometime in **June 2017**.

Major project milestones:

Mandate award: ~~September~~October 2015
 Completion of drawings and specifications: May 2016
 Public call to tender: Summer 2016
 Construction contract award: August 2016
 Construction period: Autumn 2016
 Provisional acceptance period: November 2016
 Final acceptance period: June 2017

DP 3 PROJECT BACKGROUND

As part of the NBSL project, INFC has selected certain compensation projects to offset expected losses in lentic and lotic water fish habitat, wetlands and part of a migratory bird sanctuary as a result of the future construction of a new bridge and the Champlain Bridge demolition. The Île Lapierre and Pointe Théoret projects have been chosen to compensate for losses in lentic and lotic water fish habitat and wetlands.

Île Lapierre Project:

In order to establish design parameters for the Île Lapierre project, CJB Environment Inc. conducted a study at the beginning of 2015 (see Appendix).

According to this study, Île Lapierre (approximately 53,245 m²) is the property of the City of Montréal. Ducks Unlimited Canada (DUC) holds a conservation easement in perpetuity that is located right next to the island.

Between 1980 and 1983 a portion of the island, including a marsh, was backfilled with heterogeneous material. In 2007, this material was analysed by the engineering firm Inspeccol. In their report, they identify the presence of soil volumes that meet B and C criteria under the *Politique de protection des sols et de la réhabilitation des terrains contaminés* (policy on soil protection and contaminated site rehabilitation) of Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques (MDDELCC). Before work begins to remove some this material from the island, these findings must first be verified to ensure that the soil is properly handled and disposed of according to standards and regulations.

A road bridge, which is currently used only by pedestrians, provides access to the island. In order for heavier vehicles to safely cross the bridge and access the project site, both the bridge and its approaches will have to be reinforced. This work must be planned and described in the project. A feasibility study describing the general state of the bridge and its load carrying capacity as well as suggested improvements was conducted by the engineering firm Stavibel in December 2014. This study will be made available to the successful Proponent.

It should be noted that the City of Montréal considers Île Lapierre as part of the eco-territory surrounding the Ruisseau-De Montigny nature park and, thus, any development must be in accordance with the policy on the protection and development of natural environments (*Politique de protection et de mise en valeur des milieux naturels*). The City of Montréal has created a development plan (*Plan de mise en valeur*) for the island given its importance to the park. The main objectives of this plan are to preserve the island's biodiversity and showcase its attractions (e.g. different features of the landscape) while permitting activities that are compatible with nature conservation (e.g. welcome centre, trails, rest areas, look-out points, interpretation stations). Therefore, the Lapierre project must be in keeping with this plan's objectives and development.

With regard to a waterway between the planned marsh and the river, two options must be analyzed: creating an inlet channel or laying an underground pipe. In other words, it must be decided whether or not to maintain a constant level of water in the restored marsh. Alternatives must be presented to the Client and all relevant partners for approval.

Work on or close to banks special attention given the fragility of these areas. The chosen vegetation must be completely appropriate for the area and must not be regarded as unwanted or invasive.

The study carried out by the firm CJB Environment Inc. also found the presence of brown snakes, a reptile likely to be declared as a threatened species under the *Act respecting threatened or vulnerable species*. This finding must be taken into account in order to protect brown snakes before and during work affecting their habitat (a management/contingency plan is to be drafted – see AS 5). Moreover, their habitat must be recreated near the newly developed areas.

Pointe Théoret Project:

In order to establish design parameters for the Pointe Théoret project, a study was also conducted by CJB Environment Inc. at the start of 2015. According to this study, the Pointe Théoret sector is the property of the City of Montréal.

Over the years, the point's marsh has been surrounded by backfill that disrupts the free flow of water during changes in the level of the Rivière des Prairies. In addition, the road which provides access to this part of Cap-Saint-Jacques Park blocks the inlet channel linking the marsh to the river during periods of high water. Work for the project primarily involves restoring the waterway between the marsh and river by enlarging the inlet channel and by building a culvert under the bridge. Re-profiling of the marsh's banks is not planned. However, if the required water analyses show that excavation within the marsh is required to ensure that it retains enough humidity to sustain the wetland, this work could be added to the project. All excavated soil must be analysed and handled according to the *Regulation respecting the burial of contaminated soils* (R.S.Q. Q-2, r. 6.01) and the MDDELCC's *Politique de protection des sols et de la réhabilitation des terrains contaminés*.

Meanwhile, whether the waterway should be kept open year-round or whether partial drying out from time to time is acceptable must be determined in advance. The planned culvert must be designed to meet current and future needs with regard to water volume and the traffic above. During the first stages of the project, the findings of these studies must be verified by the Client and all relevant partners.

It should be noted that work on or close to banks in this area also requires special attention due to their fragility. The chosen vegetation must be completely appropriate for the area and must not be regarded as unwanted or invasive.

DP 4 EXISTING DOCUMENTATION

4.1 Existing Documentation – available to all proponents (see Appendix)

Un nouveau pont pour le Saint-Laurent / Projets de compensation pour la perte de milieux humides et d'habitats du poisson – Concepts élaborés: final report by CJB Environment, Inc. (January 2015) – Summary including information on the Île Lapierre and Pointe Théoret projects – Available in French and English.

4.2 Existing Documentation – provided to the successful Proponent

Upon awarding the mandate, Infrastructure Canada will provide the successful Proponent with the following documents:

Pont d'accès à l'île Lapierre, Ville de Montréal, Québec, Canada – feasibility study by Stavibel, services d'ingénierie (December 2014) – available in French only;

Île Lapierre – soil characterization report by Inspecsol (2007) – available in French only;

Île Lapierre and Pointe Théoret: Biological characterizations of Île Lapierre and Pointe Théoret will be conducted in the spring and summer of 2015. Submission of final reports is scheduled for the beginning of October 2015. These characterizations will include a floral inventory (including invasive species) and a faunal inventory focusing on avifauna, herpetofauna, ichthyofauna and mammals in general. For both flora and fauna, species of special concern will be included in the inventory;

Plan de mise en valeur de l'île Lapierre, City of Montréal, department of large parks and greening, preliminary document (June 2013) – available in French.

DP 5 PROGRAM

For each of the projects, the Proponent must complete the program that is included in DP2, Project Identification, as well as those found in the sections Required Services (RS) and Additional Services (AD) of the present document.

DP 6 PROJECT OBJECTIVES

For both projects, the following must be taken into consideration by the Consultant and their sub-consultants:

- Quality;
- Sustainable development;
- Compliance with applicable statutes, regulations, codes, standards, etc.;
- Risk management;
- Schedule control;
- Cost control;
- Waste management; and
- Health and safety.

6.1 Quality

6.1.1 Design Principles – General

The Department expects the Consultant to maintain high standards of architectural design, based on recognized contemporary design principles. All elements of design, planning and execution, without limiting the foregoing, shall be fully coordinated and consistently adhere to proven design principles. The Consultant is responsible for ensuring this coordination throughout the project.

The project must be carried out in compliance with the environmental standards, laws and guidelines of all federal, provincial and municipal legislation.

Quality of materials and construction methods shall be commensurate with the program objectives and the construction budget as determined by Canada. Experimental materials are to be avoided.

The character, overall configuration and size of the project, as well as the materials used must be compatible with the surrounding environment.

6.2 Sustainable Development

The Canadian Federal Government has implemented a series of initiatives to ensure that sustainable development principles are built into the policy of all federal organizations. Like all federal departments, PWGSC is required to have a Sustainable Development Strategy (SDS). PWGSC's Real Property Branch has developed a strategy plan that sets out the principles, goals and actions for integrating sustainable development principles into its policies and operations. The Branch has established the following sustainable development goals regarding management, leadership and operation.

6.3 Waste Management

The Construction, Renovation and Demolition (CRD) Non-hazardous Solid Waste Management Protocol to which Real Property Services (RPS) is bound, provides directives on how to manage non-hazardous solid waste. This protocol is designed to meet the requirements of federal and provincial policies and the objectives of the RPS Sustainable Development Strategy as these relate to non-hazardous solid waste generated in CRD projects.

6.4 Code Compliance

All codes, regulations, bylaws and decisions of "authorities having jurisdiction" shall be abided. In cases of overlap, the most stringent regulatory provisions shall apply. The Consultant shall identify any other governing bodies or jurisdictions appropriate to the project.

6.5 Risk Management

A risk management strategy is crucial for PWGSC Project Management and integrates project planning into procurement planning. All the stakeholders of a project are involved in the risk management strategy; they form an integrated product team. Specific services required for project execution are outlined in Required Services.

6.6 Health and Safety

PWGSC recognizes that it is responsible for the health and safety of all persons on Crown construction projects and that both federal employees and private sector workers are entitled to the full protection afforded to them by occupational health and safety regulations.

In keeping with this responsibility and in order to enhance health and safety protection for all persons on federal construction sites, PWGSC voluntarily complies with the applicable provincial/territorial construction health and safety acts and regulations, in addition to the related Canada Occupational Safety and Health Regulations.

DP 7 ISSUES

7.1 Major Cost Issues

Cost Control strategy:

Effective cost estimation and control is of prime importance during planning and design. Class C and B cost estimates must be presented in the form of cost per item analyses. Accepted standard for presentation is the current edition of the Elemental Cost Analysis published by the Canadian Institute of Quantity Surveyors.

Class A cost estimates shall be submitted in the form of cost breakdown by field/trade. Estimates must include a summary and complete supporting documents indicating work items, quantities, unit prices and amounts.

7.2 Major Time Issues

Time Control Strategy:

Careful control and monitoring of the project schedule is crucial and, therefore, shall be overseen by qualified and experienced project managers. The schedule shall be presented according to a proven method and regularly updated.

DP 8 CONSULTANT SERVICES

The Consultant's team shall be able to provide services in the following fields:

- Biology (ichthyology, herpetology, ornithology, botany);
- Landscape architecture;
- Civil / structural engineering;
- Hydrodynamic engineering;
- Land surveying;
- Archaeology; and

All other pertinent fields.

DESCRIPTION OF SERVICES

PA 1 PROJECT ADMINISTRATION

The following administrative requirements apply during all phases of project delivery.

1.1 PWGSC Project Management

The Project Manager assigned to the project is the Departmental Representative.

The Project Manager is the Departmental Officer directly responsible for the project and its progress. The Project Manager is the liaison between the Consultant, Public Works and Government Services Canada and the Client Departments.

Public Works and Government Services Canada administers the project and exercises continuing control over the Consultant's work during all phases of development. Unless directed otherwise by the Project Manager, the Consultant shall meet all federal requirements and obtain all approvals necessary for the work.

1.2 General Project Deliverables

Where deliverables and submissions include summaries, reports, drawings, plans or schedules, three (3) hard copies and one (1) copy in electronic format shall be provided, unless otherwise specified.

Native versions of all documents produced for this mandate shall be included in electronic format (i.e. Word versions of deliverables, Excel files, AutoCAD plans, photographs, etc.).

1.3 Lines of Communication

Unless otherwise directed by the Project Manager, the Consultant shall communicate with Project Manager only. There shall be no direct contact between the Client Departments or other PWGSC Services and the Consultant.

During the construction tender call, the Project Manager shall conduct all correspondence with bidders and make the contract award.

1.4 Media

The Consultant shall not respond to requests for project related information or questions from the media. Such inquiries are to be directed to the Project Manager.

1.5 Meetings

The Project Manager shall arrange meetings (see Required Services) during project preparation that are to be attended by all members of the Consultant's team and representatives from:

- Client Department(s);
- Public Works and Government Services Canada;
- Consultants and Sub-Consultants;
- Expert Departments or the owner (if applicable).

Planning and design meetings shall be held at PWGSC's Place Bonaventure office or elsewhere on Montréal Island. A minimum number of meetings have been scheduled for each project. The Consultant shall ensure that members from the work team for each service attend.

Progress meetings for each service (see Required Services for more information):

	Lapierre	Théoret
RS1	1	1
RS2	2	1
RS3	2	1
RS4	3	2

The Consultant shall attend all meetings, record the issues and decisions, and prepare and distribute the minutes within seventy-two (72) hours of the meeting.

Meetings required for RS5 and RS6 are indicated in the description of the scope of work.

1.6 Response Time

For these projects, the successful Proponent's key personnel and all sub-consultants or specialist firms are required to attend meetings and/or respond to inquiries within three (3) days' notice.

1.7 Submissions, Reviews and Approvals

Work in progress shall be reviewed by the Project Manager as well as the following:

PWGSC internal services for project management and design review

Design review committee – client (for both projects)

- The different stages and presentation requirements that fall within the Consultant's mandate and which are necessary to fulfill the mandate are shown here.
- The Consultant shall allow for two weeks between each presentation of the most recent drawings and specifications so that PWGSC can review them.
- Number of copies required:
 - RS 1 – 1 hard copy, PDF copy;
 - RS 2 – 1 hard copy, PDF copy;

- RS 3 – 2 hard copies (Lapierre), 2 hard copies (Théoret), PDF copy;
- RS 4 – 3 hard copies per stage (Lapierre), 3 hard copies per stage (Théoret), PDF copy, Word copy, AutoCAD copy, original unbound copy of the estimate, 1 reproducible copy on 0.08 mm polyester film, sealed final;
- RS 5 – 1 PDF copy, addenda (if pertinent);
- RS 6 – 10 hard copies issued for construction, PDF copy of all progress-related documents (meeting minutes, shop drawings, etc.).

Chart of Reviews and Approvals (applies to both projects)	PWGSC		CLIENT		TREASURY BOARD			
	R	A	R	A	R	A	R	A
RS1 Analysis of Project Brief								
Project Scope of Services Report	X	X	X	X				
Implementation Schedule	X	X	X	X				
Revised Class D Estimate	X	X	X	X				
RS2 Design Concept								
Design Options	X	X	X	X				
Recommended Design Option	X	X	X	X				
Class C Estimate(s)	X	X	X	X				
RS3 Design Development								
Design Development Documents	X	X	X					
Construction Drawings and Specs (50%)	X	X	X					
Class B Estimate(s)	X	X	X	X				
RS4 Construction Documents / Tender Call								
Construction Drawings and Specs (75% complete)	X	X	X					
Construction Drawings and Specs (99% complete)	X	X	X					
Class A Estimate(s)	X	X	X	X				
Final Tender Documents	X	X	X	X				

R = Review A = Approval

1.8 Official Languages

These projects require services in both official languages. The final tender documents (plans, specifications and tender form) must be bilingual [from step 99% of these projects \(see RS4, section 4.1\)](#). ~~Quotes~~[Specifications](#) must have two separate versions: French and English.

Official language requirements:

- The Consultant shall prepare all construction documents in both of Canada's official languages.
- Both official languages have equality of status and one is not considered a translation of the other.
- The Consultant is responsible for the accuracy and completeness of all texts, as well as the uniformity of all documents.
- According to current practice, only one drawing set – with notes written in French and English – shall be created, while separate documents shall be produced for each language for calls to tender, archive drawings and documents on operations and maintenance.

Note: All studies and/or reports to be included in the Appendix of the drawings and specifications must be bilingual [from step 99% of these projects](#).

REQUIRED SERVICES

RS 1 ANALYSIS OF PROJECT REQUIREMENTS

1.1 Intent

To ensure that the Consultant has reviewed and integrated all the project requirements, identified and evaluated potential conflicts or problems, provided alternatives, and prepared and received approval for the description of the work, including the delivery process, schedule and estimates, so as to ensure that project is carried out smoothly. Together these approved documents constitute the Scope of Services which shall be used throughout the project for reference purposes.

1.2 General

Scope and Activities:

- Attend the project launch meeting. Note: for the Île Lapierre project, a representative of the City of Montréal's department of parks and green spaces will participate in the first stages of the project to ensure that the city's plans for the island are taken into account;
- Visit the site and verify the availability and capacity of the services required for the project;
- Analyze the project's requirements and program, as well as the preliminary program for the City of Montréal's Île Lapierre development plan;
- Review all available existing material related to the project;
- Make any necessary inquiries to obtain missing information or to clarify any ambiguities in the program;
- Review the project schedule and ensure that all the milestones can be met;
- Review the cost plan/budget to verify that costs are realistic and achievable;
- Identify all authorities with jurisdiction over the project;
- Identify the codes, regulations and standards that apply;
- Establish an environmental impact reduction policy that meets project objectives and economic constraints; and
- Identify aspects of the project that risk to either impact the environment or fall under Québec's *Environment Quality Act*.

1.3 Deliverables:

Comprehensive summary of the project requirements/program demonstrating an understanding of the scope of work which includes the following:

Written description of the perceived risks, problems, conflicts or other perceived information/clarifying assumptions to be taken into consideration by the Project Manager;

Written description of any further input, studies or analyses that may be required;

Confirmed/adjusted project schedule and cost plan;

Revised Class D estimate of construction costs;

Partial analysis of applicable laws, regulations, codes and standards in force;

Outline of options to be considered (e.g. Île Lapierre project: inlet channel versus an underground pipe connecting to the river in the northwest and possible outlet channel towards the river in the northeastern part of the island); and

Identification of any additional expertise required.

RS 2 DESIGN CONCEPT

2.1 Intent

To translate project requirements into spatial parameters. To explore design options and analyze them with regard to the program's priorities and objectives, as previously identified. Out of this process, one option will be recommended to proceed to design development.

2.2 General

Scope and Activities:

- For both projects, preliminary designs have already been created (see CJB's study in the Appendix). These designs shall be analyzed and modified as needed to ensure that they meet the program's objectives and requirements. For the Île Lapierre project, the revised design shall also integrate program elements agreed upon with the City of Montréal's representative and meet the objectives of both organizations (City of Montréal and INFC).
- Conduct a hydraulic analysis based on land and bathymetric survey results (see AS 1) for sites where development is planned to ensure that the hydrologic dynamics of the study area are well understood (e.g. determination of flood/low flows), that objectives are attained (e.g. creation of a small amount of water flow in the Lapierre project basin) and that design parameters are identified (e.g. excavation depth and slope profiles). This analysis shall include without being limited to:
 - Analysis of historical data on water levels and the flow-rate of the Rivière des Prairies;
 - Periodic measurements of flow and speed;
 - Periodic measurements of water levels and depths;
 - Two-dimensional (2D) numerical modelling (hydraulic calibration and development scenario simulation for each of the three different flow rates: 100-year flood flow, average spring conditions and dry-weather) for each site;
- As needed, revised design options that are both viable and possible, including alternatives to an inlet channel or an underground pipe in the northwestern sector of the Île Lapierre project and an analysis of the need for a second channel on the northeastern side of the island. The optimal depth for the Théoret project's inlet channel and the culvert's load carrying capacity shall also be determined for these design options, as well as whether or not to deepen the existing basin based on estimates of how much water must remain in the basin during low-water periods;
- Analysis of each solution based on project objectives, including those for project cost and schedule;
- Recommendation of one option for further development (must include all supporting documentation and technical justifications);
- Drawings of design concepts;
- Project schedule;
- Class C estimate of construction costs.

It should be noted that during the planning and review of preliminary concepts several parameters must be approved by certain project partners [INFC, PWGSC, Fisheries and Oceans Canada (F&O), Environment

Canada (EC), City of Montréal and Ducks Unlimited]. The Client, INFC, is responsible for any coordination with the project's partners and expert departments concerning any scheduling changes that may arise during planning and development phases of the project. The Project Manager shall ensure that the Consultant is aware of all pertinent information resulting from this coordination.

2.3 Details

The following is a non-exhaustive list of the services to be provided by each area of expertise. Certain activities may require that several professionals work together.

The Consultant is responsible for all aspects of the mandate and shall coordinate work by all sub-consultants/specialists. This includes, but is not limited to:

2.3.1 Biology, Landscape Architecture and/or Engineering Drawings

- Plan of existing topographical and hydrological conditions;
- General development plan showing the revised concept and its orientation, including plan and sectional views. Area for compensation shall be clearly indicated (for fish habitat in lentic waters and for wetlands);
- Drawings of main alternatives, indicating the relative disposition of primary development zones, etc.;
- Plan showing the current layout of the marsh and/or the proposed layout with the inlet channels to be built (Lapierre) or improved (Théoret); and
- Surface and/or sectional sketches indicating the basic conceptual approach.

2.3.2 Civil/Structural Engineering Documents

- Lapierre Project:
 - Overall plan showing the current state of the bridge and the planned general work to the bridge and its approaches;
 - Surface and sectional sketches showing approximately the profiles studied and the volumes to be removed for the planned inlet channels (or pipes).
- Théoret Project:
 - Overall plan showing the proposed general work and the culvert approaches;
 - Surface and sectional sketches showing approximately the profiles studied and the volumes to be removed for the proposed culvert.

2.4 Deliverables

Provide the following:

- Drawings of revised design concepts;
- Description of options with a recommendation for the preferred option;
- Class C estimate;
- Report on any deviations from the work schedule, including recommendations for corrective measures or an updated timeline; and
- Figures illustrating numerical modelling for different scenarios and flow rates.

RS 3 PRELIMINARY DESIGN

3.1 Intent

To further develop one of the options presented during the conceptual design phase. Design Documents consist of drawings and other documents that describe the scope and nature of the entire project with regards to its biological, architectural and structural aspects, as well as materials and any other required elements.

3.2 General

Scope and Activities

- Obtain written approval from the Project Manager for the development of one of the proposed design concepts that incorporates elements from the City of Montréal's plan;
- If changes are required, provide supporting documentation for all changes, analyze the impact of the changes on each component of the project and, if appropriate, present again the documents for approval;
- Define and clarify the intent of the design concept for each area of expertise;
- Present Design Documents to the Client, Design Review Committee or any other applicable committees according to instructions from the Project Manager;
- Present the project to government or local authorities, if applicable;
- Analyze the project's feasibility and advise on the construction process and its duration;
- Based on documents/material available at this stage, prepare a project milestone schedule for consideration (pay extra attention to the impact on the sites' owners and users);
- Continue to review all applicable statutes, regulations, codes and municipal bylaws as they pertain to project design;
- Provide a list and outline specifications for all sections of the National Master Specifications (NMS) that is to be used;
- Submit outline specifications for all systems, main components and equipment. Outline specifications should include the manufacturer's literature for each of the proposed systems' main components and equipment pertaining to the present project;
- Class B estimate of construction costs.

3.3 Details

The following is a non-exhaustive list of the services to be provided by each area of expertise. Certain activities may require that several or all professionals work together.

The Consultant is responsible for all aspects of the mandate and shall coordinate work by all sub-consultants/specialists. This includes, but is not limited to:

3.3.1 Biology, Landscape Architecture and/or Engineering Drawings

- Overall plan illustrating site boundaries, the site's access road, a temporary storage zone (Pointe Théoret), vegetation to be kept/protected, vegetation to be cut and all other elements needing protection or that must be displaced (archeological items, snakes, snake hibernacula, fossils, etc.);
- Comprehensive plan, overall design, details, sections showing the marsh's geometry, floodplains, inlet channel, water drainage or flow, earthwork, planting areas and other elements planned by the City of Montréal;

- Plans and drawings required for earthwork and soil management, including existing and proposed elevations, planned slopes and drainage elements (see civil engineering);
- Layout plan or dimension drawings that show all the dimensions required to understand and locate work/structures. Areas for compensation shall be clearly indicated (for fish habitat in lentic waters and for wetlands);
- Planting plan illustrating all the zones to vegetate (and the plants chosen), including zones requiring restoration following construction (e.g. the temporary storage area);
- Details, sections, elevations or any other special design features that may require illustration or explanation.

Note: Relevant drawings shall be incorporated into those of other areas of expertise.

3.3.2 Structural and Civil Engineering Drawings

- Drawings indicating all existing structures (Île Lapierre bridge);
- Drawings showing all proposed structural elements, foundation type, building materials and any other significant details (Île Lapierre bridge);
- Drawings required for work related to proposed drainage structures (culvert/ underground pipe);
- Drawing and culvert design (Théoret)/ underground pipe design (Lapierre, if chosen option);
- Details, sections, elevations or any other special design features that may require illustration or explanation.

Note: Relevant drawings shall be incorporated into those of other areas of expertise.

3.4 Deliverables

Provide the following:

- Plans that take into consideration all areas of expertise and that show in detail all information required to make design decisions and realistically evaluate project cost;
- Details concerning the biology, landscape architecture, civil engineering and structures of the project;
- Cross-sectional and elevation views;
- Index of preliminary estimate identifying all pertinent sections;
- Class B estimate of construction costs;
- Schedule of preliminary construction work, including long-term deliverables.

3.5 Progress Review

- PWGSC will conduct a quality-control check when the project is 50% complete. The Consultant will receive feedback on the progress within ten (10) working days following the submission of the progress drawings and specifications.

RS4 CONSTRUCTION DOCUMENTS

4.1 Intent

To prepare drawings and specifications that describe in detail the requirements for execution of the work and establish the final estimate of project costs.

Important note: [For Lapierre project, this stage only applies to the design elements that have been identified by the Client, INFC. The City of Montréal will oversee, at a later stage, the design elements that relate specifically to its plans.](#)

This stage is comprised of three sub-stages:

- 75% Submission: denotes that the project is rather advanced from a technical point of view – that is to say, specifications, schedules, details/plans concerning biology, landscape architecture and engineering are rather complete;
- 99% Submission: denotes that complete working documents for tendering purposes have been presented and submitted to local authorities for review prior to the application for required permits;
- Final (100%) Submission: incorporates all required changes from the review of the 99% submission and aims to provide PWGSC with a complete version of all the working documents for the invitation to tender.

Note : [Bilingualism required for all documents submitted from step 99% \(eq. Plans, specifications, studies or reports appended\).](#)

4.2 General

Activities at all three stages are similar; however, completeness of the project development should reflect the submission stage (see below).

Scope and Activities:

- Obtain the Project Manager's approval of documents presented at every stage of the design development (75%, 99% and final);
- Confirm format for presenting drawings and specifications;
- Identify any specific methods (i.e. phased construction);
- Submit drawings and specifications at each of the required stages (75%, 99% and final);
- Provide a written reply to all review comments and incorporate answers into the Construction Documents as applicable;
- Provide information on the status of cost estimates and present updated cost estimates as the project progresses;
- Update the project schedule;
- Prepare a Class A estimate of construction costs; and
- Review the specifications materials and construction methods and confirm that they meet sustainable development objectives.

4.3 Details

4.3.1 Technical and Production Meetings

- Production of construction documents shall be reviewed during the meetings arranged by the Project Manager and Consultant.

- Representatives from the Client Department(s) and PWGSC support staff must attend all meetings arranged by the Project Manager.
- The Consultant shall ensure that all members of their staff and sub-consultant representatives attend the technical and production meetings as required.
- The Consultant shall arrange for all necessary data, progress prints, etc.
- The Consultant shall prepare meeting minutes and distribute copies to all participants.

4.3.2 Progress Review

- As work progresses on construction drawings, submit drawings, schedules, details, pertinent design data and updated Cost Plan and Project Schedule as appropriate.
- Submitted calculations will not necessarily be reviewed. They are required for archival purposes and, in some cases, may facilitate understanding and interpretation of studies. Calculations shall be submitted in a format that is legible, neat and easily understandable.
- Specifications and an index of specification sections. Specifications shall consist of typed and edited PWGSC amended NMS sections, PWGSC in-house master specification sections and NMS sections.
- PWGSC will conduct quality-control checks when the project is 75% and 99% complete. The Consultant will receive feedback on the progress within ten (10) working days following the submission of the progress drawings and specifications.

4.4 Deliverables

Deliverables are similar at all three stages; however, completeness of the project development should reflect the stage of submission.

4.4.1 75% and 99% Submissions:

- Complete specifications and working drawings;
- Preliminary and final versions of all reports prepared for this mandate (RS and AS) and/or any other relevant documents shall be included in the appendix of the drawings and specifications for the invitation to tender;
- One (1) copy of the design requirements, studies, etc. required by PWGSC technical services for final verification and record keeping;
- One (1) copy of the updated Cost Plan and Project Schedule.

4.4.2 Final Submission (100%):

This submission incorporates all revisions required by the review of the 99% submission. All documents must be signed and sealed. Provide the following:

- Complete set of working drawings;
- Complete set of specifications;
- Class A estimate of construction costs;
- All studies for additional services whether they are integrated or not into the drawings and specifications.

As a safeguard against the loss of or damage to the originals, keep a complete set of reproducible drawings and a copy of the specifications.

RS 5 TENDER CALL, BID EVALUATION & CONSTRUCTION CONTRACT AWARD

5.1 Intent

To obtain and evaluate bids from qualified contractors to construct the project as per the Tender Documents. To award the construction contract according to government regulations, including *Federal Rules for Bid Depositories*. ~~Note: Only applies to INFC's part of the project.~~

5.2 General

Scope and Activities:

- Attend tenderers' briefing meetings.
- Prepare addenda based on questions arising in such meetings for issue by the Project Manager.
- Help the Project Manager answer questions from tenderers.
- Provide the Project Manager with all information required by tenderers to fully interpret the Construction Documents. The Project Manager will issue the addenda to all participants.
- Keep full notes of all inquiries during the bidding period and then submit them to the Project Manager for PWGSC records.
- Assist in tender evaluation by providing advice on the following:
 1. Completeness of tender documents in all respects;
 2. Technical aspect of the bid;
 3. Effect of alternatives and qualifications which may have been included in the bid;
 4. Tenderers' capability to undertake the full scope of work;
 5. Availability of adequate equipment to carry out the work.
- If PWGSC decides to re-tender the project, provide advice and assistance to the Project Manager.
- Once the contract has been awarded, issue documents for construction.

5.3 Deliverables

- Originals of drawings and specifications for invitation to tender;
- Electronic copies of drawings and specifications for invitation to tender;
- Addenda where needed;
- Source data for all materials produced;
- Changes to the documents, if re-tendering is necessary;
- Updated cost estimate and/or project schedule;
- Originals of drawings and specifications for construction;
- Electronic copies of drawings and specifications for construction.

RS 6 CONSTRUCTION AND CONTRACT ADMINISTRATION

6.1 Intent

To implement the project in compliance with the Contract Documents and to direct and monitor all necessary or requested changes to the scope of work during construction. ~~Note: Only applies to INFC's part of the project.~~

6.2 General

Scope and Activities:

- During the implementation of the project, act on PWGSC's behalf to the extent provided in this document.
- Inspect work in-progress at appropriate intervals to ensure that it is in conformity with the Contract Documents.
- Keep PWGSC informed of the progress and quality of the work and report any defects or deficiencies in the work observed during the course of the site review.
- Ensure compliance with Commissioning Plan and update plan as necessary.
- Ensure that environmental mitigation measures are properly implemented and that the terms and conditions listed in the certificate of authorisation issued by the MDDELCC are respected.
- Determine amounts owing to the Contractor based on the progress of the work and certify payments to the Contractor.
- Act as interpreter of the requirements of the Contract Documents.
- Provide cost advice during construction.
- Advise the Project Manager of all potential changes to scope of work for the duration of project implementation.
- Review the Contractor's submittals.
- Prepare and justify change orders that will be submitted to the Project Manager for approval.
- Indicate any changes or material/equipment substitutions on Record Documents.
- During the twelve (12) month warranty period, investigate all defects and alleged defects and provide the Contractor with appropriate instructions.
- Conduct a final warranty review.

6.3 Details

Scope and Activities:

This list is not restrictive and does not relieve the Consultant or its sub-consultants of any professional obligations.

6.3.1 Pre-Construction Meetings

- Immediately after contract award, arrange a briefing meeting with the Contractor and the Departmental Representatives. Prepare meeting minutes and distribute copies to all participants and to other persons agreed upon with the Project Manager.
- Call job meetings as frequently as required, commencing with the construction briefing meeting. The following people should attend all meetings: Job Superintendent, Project Inspector, main sub-subcontractors, affected sub-consultants and Government Services representatives as necessary. Prepare the meeting minutes and distribute copies to all participants. The Project Manager may invite Client Departments to attend any of these meetings.

6.3.2 Project Schedule

- Obtain Project Schedule with detailed commissioning component shown separately, as soon as possible after contract award and ensure proper distribution.
- Monitor the approved construction schedule, take necessary steps to ensure that the schedule is respected and submit a detailed report to the Department concerning any delays.
- Keep accurate records of causes of any delays.
- Make every effort to assist the Contractor in avoiding delays.

6.3.3 Time Extensions

- Only the Department may approve any requests for Time Extensions. Approval will be issued in writing by the Project Manager.

6.3.4 Cost Breakdown

- Obtain from the Contractor a detailed cost breakdown on the standard PWGSC form and submit it to the Department with the first Progress Claim.

6.3.5 Sub-Contractor Changes

- The Contractor is required to use the sub-contracts listed on the Tender Form unless a change is authorized by the Department. Changes are only considered when they do not involve an increase in cost. Review all requests for changes of sub-contractors and submit recommendations to the Project Manager.
- When sub-contractors have not been listed on the Tender Form, obtain the list of sub-contracts from the Contractor no later than ten (10) working days after the date of award.

6.3.6 Labour Requirements

- The Contractor is bound by the Contract to maintain competent and experienced labourers on the project and to comply with the Canada Department of Labour (Labour Conditions). Inform the Department of any labour conditions that appear to require corrective action by the Department.
- The Consultant shall ensure that a copy of the Labour Conditions for the Contract is posted in a conspicuous place on site.

6.3.7 Bylaw Compliance

- Ensure that construction complies with applicable bylaws and regulations.
- Matters pertaining to the Department of Labour shall be referred to the Project Manager.

6.3.8 Construction Safety

- All project sites that are occupied by federal employees during construction are subject to the *Canada Occupational Health and Safety Regulations* as administered by Health Canada.
- In addition, the Contractor must comply with the provincial and municipal safety laws and regulations, and with any instructions issued by the officers of these authorities having jurisdiction over construction safety.

6.3.9 Site Visits

- Provide non-resident construction inspection services. Ensure compliance with Contract Documents.
- Provide the services of qualified personnel who are fully knowledgeable of the technical and administrative requirements of the project.

- Establish a written understanding with contractors as to what stages or aspects of the work are to be inspected prior to being covered up.
- Assess quality of work and identify in writing to the Contractor and to the Department all defects and deficiencies observed at time of such inspections.
- Inspect materials, prefabricated assemblies and components at their source or assembly plant, as necessary, to ensure that the project progresses.
- Issue in writing to PWGSC any deficiency lists, directions, or clarifications.

6.3.10 Clarifications

- Provide clarifications on Plans and Specifications or site conditions, as required, so that the project not be delayed.

6.3.11 Progress Reports

- Report to the Department regularly on the progress of the work; submit weekly reports.

6.3.12 Work Measurement

- If work is based on unit prices, measure and record the quantities for verification of monthly progress claims and the Final Certificate of Measurement.
- When Contemplated Change Notice is to be issued based on unit prices, keep an accurate account of the work. Record dimensions and quantities.

6.3.13 Detail Drawings

- Drawings with any additional details shall be submitted for the Department's information as and when required to further clarify or assist in interpreting the Contract Documents.

6.3.14 Shop drawings

- On completion of project, forward three (3) copies of reviewed shop drawings to the Department.
- Ensure that the shop drawings contain the project number and that they are recorded in sequence.
- Verify the number of copies of shop drawings required. Consider providing additional copies for Client's departmental review.
- Ensure that all shop drawings are stamped "Checked and Certified Correct for Construction" by the Contractor and stamped "Reviewed" by the Consultant before return to the Contractor.
- Expedite the processing of Shop Drawings.

6.3.15 Inspection and Testing

- Prior to tendering, provide the Department with a list of recommended tests, including on site and factory testing.
- Ensure that all testing is detailed in the Commissioning Plan.
- When the contract is awarded, assist the Departmental Representative in briefing the testing firm on required services, distribution of reports, lines of communication, etc.
- Review all test reports and take necessary action with the Contractor when work fails to comply with the Contract Documents.
- Immediately notify the Project Manager when tests fail to meet project requirements and when corrective work will affect the schedule.
- Assist Departmental Representative in evaluating the testing firm's invoices for services performed.

6.3.16 Construction Changes

- The Consultant does not have authority to change the work or the price of the Contract.
- Changes which affect cost or design concept must be approved by the Department.
- Upon Departmental approval, obtain a detailed quotation from the Contractor. Review prices for acceptability and immediately submit recommendations to the Department.
- The Department will issue Consultant-prepared Change Orders to the Contractor, with copy to Consultant.
- All changes, including those not affecting the cost of the project, shall be described in the Change Orders.
- The practice of "trade-offs" is not allowed.

6.3.17 Contractor's Progress Claims

- Each month the Contractor shall submit a Progress Claim for work and materials, as required in the Construction Contract.
- The claims are made by completing the following forms if applicable:
 - Request for Progress Payment;
 - Cost Breakdown for Unit and/or Combined Price Contract;
 - Cost Breakdown for Fixed Price Contract;
 - Statutory Declaration Progress Claim.
- Examine and sign designated forms and promptly forward claims to the Department for processing.
- Submit with each request for progress payment:
 - Updated schedule for the progress of work;
 - Photographs showing the progress of work.

6.3.18 Materials on Site

- The Contractor may submit a request for payment for material on site that has not been used in construction.
- All material must be stored in a secure place designated by the Department.
- Claims must be accompanied by a detailed list of materials with the supplier's invoice showing the price of each item; the Consultant shall review the list.
- Items shall be listed separately on the Detail Sheet after the breakdown list and the total.
- As materials are used in construction, the cost of these materials must be added to the appropriate detail item and removed from the material list.

6.3.19 Acceptance Board

- When satisfied that all the work is nearly completed, the Consultant shall inform the Department. The Consultant shall ensure that their representative, the sub-consultants' representative, the Resident On-Site Reviewer, the Contractor and all major sub-trade representatives are part of the Project Acceptance Board and that they attend all meetings organized by the Department.

6.3.20 Interim Inspection

- The Acceptance Board shall inspect the work and list all unacceptable and incomplete work on a designated form. The Board shall accept the project from the Contractor subject to the correction of any deficiencies and/or completion of any uncompleted work as listed and assessed.

6.3.21 Interim Certificates

- Payment requires completion and signing, by the parties concerned, of the following documents:
 1. Interim Certificate of Completion;
 2. Cost Breakdown for Fixed Price Contract;
 3. Cost Breakdown for Unit and/or Combined Price Contract;
 4. Inspection and Acceptance;
 5. Statutory Declaration Interim Certificate of Completion; and
 6. Workmen's Compensation Board Certificate.
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are provided to the Department for processing.

6.3.22 Final Inspection

- The Consultant shall inform the Department when satisfied that all work under the contract has been completed, including the deficiency items listed on the Inspection and Acceptance form resulting from the Interim Inspection. The Department will then request that the Acceptance Board conduct a final inspection of the project. If everything is satisfactory, the Board makes final acceptance of the completed project from the Contractor.

6.3.23 Final Certificate of Completion

- Final payment requires completion and signing, by the parties concerned, of the following documents:
 1. Final Certificate of Completion;
 2. Cost Breakdown for Fixed Price Contract;
 3. Inspection and Acceptance;
 4. Statutory Declaration Final Certificate of Completion;
 5. Cost Breakdown for Unit and/or Combined Price Contract;
 6. Workmen's Compensation Clearance Certificate; and
 7. Hydro Certificate.
- Verify that all items are correctly stated and ensure that completed documents and any supporting documents are provided to the Department for processing.

6.3.24 Take-Over

- The official take-over of the project, or parts of the project, from the Contractor is established by the PWGSC Project Team which includes the Consultant and the Client Department. The date for Interim Certificate of Completion and Final Certificate of Completion signifies commencement of the twelve-month warranty period for work completed on the date of each certificate in accordance with the General Conditions of the Contract.
- Provide Department with original copies of Contractor's warranties for all materials and work covered by an extended warranty certificate in accordance with the General Conditions of the specifications. Verify the comprehensiveness and scope of the coverage.

6.3.25 As-Built and Record Drawings and As-Built Specifications

- Following the take-over, obtain a as-built, marked-up, hard copy of drawings from the Contractor that show:
 - Significant deviations in construction from the original Contract Drawings, including changes shown on Post-Contract Drawings, changes resulting from Change Orders or from On Site Instructions.
- Check and verify all as-built records for completeness and accuracy and submit to PWGSC.
- Produce Record Drawings by incorporating as-built information into project drawings.
- Submit Record Drawings and Specifications in number and format required by the Consultant

Agreement within eight (8) weeks of final acceptance.

- Provide a complete set of final shop drawings.

6.4 Deliverables

- Written reports from site visits including persons involved;
- Written reports on the progress of work and cost of the project at the end of each month;
- Additional detail drawings when required to clarify, interpret or supplement the Construction Documents;
- Post contract award drawings;
- Interim or final certificates;
- As-built records;
- Warranty deficiency list; and
- Report on Final Warranty Review.

ADDITIONAL SERVICES

AS 1 LAND AND BATHYMETRIC SURVEY SERVICES

1.1 Intent

To conduct on-site technical and land surveying and to plot the required sectors as described in the scope of services.

In particular, the bathymetric surveys will be used to characterize the beds and banks of water bodies within the development zones in order to conduct appropriate water analyses (see RS 2).

1.2 General

Scope and Activities

- Identify all anthropogenic and natural components;
- Conduct topographic and land surveys;
- Conduct a bathymetric survey of the pond, channel and river;
- Plot survey findings;
- Place survey monuments; and
- Establish cadastral boundaries and mark property lines.

North American Datum 1983 (NAD 83) shall be used as the geodetic reference system for surveying.

Bathymetric surveying of the beds of water bodies shall be conducted aboard a boat to measure elevations.

Land and Bathymetric Surveys

More specifically, the following elements shall be identified by the land and bathymetric surveys:

Anthropogenic Components

In order to evaluate the current state of the site, all required physical elements shall be included in a ground survey; these elements include surface courses, existing trails/roads, public utility infrastructure (underground and aerial networks), structures (bridges, walkways, etc.) and, if pertinent, the built environment.

Natural Components

Trees with a diameter greater than 150 mm DHP shall be surveyed from the foot of the tree. Surveys shall include diameter breast height (DHP) and species. In addition, 500 trees with a diameter less than 150 mm DHP shall be surveyed.

The limits of the wetland, as defined by the site, shall be determined. Topographic elevations shall also be measured for the site and wetland.

The following data shall be collected in order to characterize the beds and banks of development areas: flow facies, substrate type (diameter and %), riparian condition (erosion, slope, and stability), flow depth and width.

High water positions shall also be identified using botanical methods (predominant plant species).

The general topographic survey may be conducted using LiDAR technology. XYZ precision levels shall be less than 10 cm or as per instructions from the Consultant's design supervisor. However, ensure that depressions,

low points, high points as well as the bottom and tops of embankments are manually surveyed with a total station.

If contour lines are required, they should integrate data gathered from other surveys.

Site survey control points should be placed in suitable locations (to be chosen with the design supervisor).

Survey monuments shall be placed to mark property lines if applicable.

Topographic and bathymetric survey limits shall be defined by the Consultant in charge of project design.

1.3 Deliverables

- Land and bathymetric survey results – hard copy plan, sealed by the land surveyor; and
- Digital file – AutoCAD version to be prepared with Consultant.

AS 2 ENVIRONMENTAL IMPACT ASSESSMENT AND APPLICATION FOR CERTIFICATE OF AUTHORIZATION

2.1 Description of Services

For each project, the Consultant shall prepare a report for the environmental impact assessment as part of the application for a certificate of authorization from the MDDELCC and in accordance with the *Environment Quality Act*.

2.2 Scope and Activities

2.2.1 Environmental Impact Assessment (EIA)

The Consultant shall assess the environmental impact of the projects, including the impact of excavation, construction in aquatic environments (channels, pipe, culvert, etc.), management of backfill on land and configuration of the storage zone. Environmental impact assessment shall include, without being limited to, the following items:

- Environmental impact, including impact of any accidents or their resulting deficiencies;
- Magnitude of the environmental impact;
- Applicable mitigating measures from a technical and economic standpoint; and
- Likely cumulative impact of the project on the environment given other work and/or other projects or activities.

2.2.2 Contents of the Reports

Environmental impact assessment reports shall include, without being limited to, the following items:

- Background;
- Project scope – description of primary and secondary components (description of activities and work) (if backfill was contaminated, the Consultant must research and propose disposal sites and, if necessary, the requirements that the developer must meet to dispose of such material);
- Rationale for the project;
- Overview of environmental components: physical environment (water, air, soil and all other pertinent components), biological environment (terrestrial fauna, aquatic fauna, land vegetation, rare and threatened species and all other pertinent components) and human environment (archaeological potential, etc.);
- Methodology for assessing impact;
- Assessment of project's adverse effects on the environment's biophysical components and on changes to the environment causing any other effects;
- Description of mitigating measures;
- Analysis of residual effects;
- Analysis of cumulative adverse effects;
- Economic aspects of the project (project cost, any project funding, etc.);
- Description of monitoring program for work, if necessary;
- Description of follow-up program, if applicable;
- Table summarizing the affected environmental components, the activities affecting these components, any mitigating measures and residual impacts;
- Environmental Monitoring Form for construction work describing all mitigating measures to be taken;
- Location maps, photographs, species distribution maps (if necessary), etc.;
- Location maps of surveyed areas and sectors where development is planned, etc. in AutoCAD format (DWG);

- Results of sediment and soil analyses;
- SIGHAP maps and other reference documents; and
- Correspondence with various authorities (CDPNQ and Environment Canada for species at risk, organizations ensuring federal coordination, etc.).

However, the report should be structured using the sections found in the application for the certificate of authorization (i.e. the information may be simply copied and pasted from the form).

PWGSC shall provide the Consultant with the biological characterization reports for Île Lapierre and Pointe Théoret; these characterizations – including floral and faunal inventories focusing on avifauna, herpetofauna, ichthyofauna and mammals in general – will be conducted in the spring and summer of 2015 by a third party. They will also include floral and faunal species classified as at risk or invasive.

2.3 Applications for Certificates of Authorization (CA) from the MDDELCC

The Consultant shall fill out an application for a CA for each site. The application is available on the MDDELCC's website. The EIA report for each project will act as a source document.

A list of the documents to be included can be found within the application itself. Project drawings and specifications are included in this list. The Consultant is responsible for ensuring that the application is complete, including all required documents, and that it meets MDDELCC requirements. If required, the Consultant shall reply to questions raised by the MDDELCC with regard to the CA application.

2.4 Deliverables

Preliminary EIA report in electronic format (Word and PDF) for each project. For practical reasons, the Consultant shall submit reports covering the items in Section 2.2.2, but the reports should include the same sections as those found in the CA application. This format is user friendly and will make the review process easier for the Client. Once the report has been approved, information found in the report shall be copied and pasted into the application;

Final EIA report in print and electronic formats;

Completed CA application for the MDDELCC, ready to be signed by the Client; and

All necessary documents for the CA application (EIA, soil characterization, survey reports, etc.).

Note: the above items must be provided for each project.

The report must contain all the information described in Section 2.2.2, as well as all maps and photographs required for full understanding of the environmental assessment. The Proponent shall sign the report.

AS 3 ARCHAEOLOGICAL INVENTORY ~~POTENTIAL STUDY AND EXPLORATORY DIG~~

3.1 Intent

To identify sectors that will be affected by landscaping or that may eventually provide archaeological resources in order to take appropriate mitigating measures, where required, before and after work.

In addition, an archaeological survey is to be conducted.

3.2 General

Scope and Activities:

Île Lapierre

Carry out an archaeological survey of the sectors that will be specifically affected:

- Area around the zone backfilled in the 1980s;
- Sections of the bank where work is planned for the creation of channels or the installation of underground pipes;
- Southwest half of the planned excavation area [sector that seems to have been untouched by backfill in the 1980s (see aerial photo from 1964)] and the perimeter of this area; and
- Any other area of the island that may be affected by vehicles, storage, etc.

This survey shall be carried out by digging a small number of test pits or trenches to check for the presence of archeological resources and, as required, evaluate their value and interest. If needed, the test pits or trenches may be enlarged to better identify any remains or traces of past human activity that is uncovered.

Based on survey findings, recommendations shall be made concerning any mitigating measures to be taken before or after landscaping.

Pointe Théoret

Given that project area is very small, the archaeological survey need only be carried out for the sectors that will be specifically affected by landscaping:

- 60-meter strip around the marsh;
- Area to be dug up and widened for the inlet channel;
- Temporary storage area for materials; and
- Any other area that may be affected by vehicles, storage, etc.

This survey shall be carried out by digging a small number of test pits or trenches to check for the presence of archeological resources and, as required, evaluate their value and interest. If needed, the test pits or trenches may be enlarged to better identify any remains or traces of past human activity that is uncovered.

Based on survey findings, recommendations shall be made concerning any mitigating measures to be taken before or after landscaping.

The Consultant shall be able to:

- Provide services specializing in Québécois historical archeology and the paleohistory of Québec;
- Offer the required services for archeological research and intervention (potential study ~~and field survey~~);
- Appoint an experienced archeologist who will be in charge of the archaeological component and who will be on site during each stage of the survey. The archeologist should have training in historical archaeology or prehistory as well as experience in the types of research and intervention required for the mandate. Moreover, the archaeologist's curriculum vitae should show that he/she has knowledge of Euro-Québécois archaeology and paleohistory in the province of Québec;
- Carry out all work related to the required archaeological research and intervention for the mandate, including ~~historical research~~, digging test pits and trail trenching, field surveying and photography, georeferenced mapping, preparing and inventorying artefacts, research documentary analyzing and interpreting data, and writing reports;
- Provide the resources required to form multidisciplinary teams with the necessary experience and knowledge to carry out the proposed mandate;
- Supply all materials and equipment needed to carry out the proposed mandate and ensure the proper functioning of the equipment. This includes the materials for the long-term storage of any artefacts;
- Fulfil the mandate in accordance with the accepted ethics and standards of Québec's archeological community with regard to methodology, recording/interpreting data and preparing reports. The Consultant must also be able to gather data in accordance with the recording standards applicable in Québec;
- Obtain an archaeological research permit from the ministère de la Culture et des Communications du Québec (MCCQ) and meet all requirements under this permit; this is a requirement because the majority of the areas affected by the proposed mandate fall under provincial jurisdiction. **Due to the time required for the MCCQ to issue an archaeological research permit, the permit application must be submitted to the MCCQ as soon as the contract is awarded.**

During project execution, the Consultant shall provide the Departmental Representative with the following items so that the proposed work team, intervention methods and field/laboratory activities may be reviewed:

- Supervising archeologist's identity and a description of his/her credentials and experience with respect to the proposed project;
- Identity of each member of the team and his/her role;
- Curriculum vitae for each member of the team;
- Field strategy for archeological surveys;
- Methodology for analyzing data;
- Schedule for each stage of archaeological research, including preliminary studies/work, field work, data analysis and report writing;
- Budget proposal divided according to the stages and sub-stages outlined in the schedule and including, for each member of the team, the number of hours and days assigned to work, the hourly rate of pay and the total cost of professional fees. Any other costs related to the project, such as specialized analyses, should also be included.

Services shall be organized into three phases:

Field work

- Use georeferencing to identify test pits/trenches and any remains;
- May produce stratigraphic sketches, not to scale (with soil thickness). However, stratigraphic cross-sections, to scale, must be performed if remains are found and/or soil is of interest;

- Must use the Tikal system to record all data;
- Gather all artefacts; and
- Collect relevant samples.

Laboratory work

- Process all artefacts;
- Inventory all artefacts;
- Conduct relevant specialty analyses;
- Bag and box artefacts for permanent storage; and
- Catalogue artifacts that are considered to be of interest.

Data analysis

- Data analysis of the Euro-Québécois period shall take into account old maps/plans and dating obtained from artifacts.
- The paleohistorical component should interpret findings with regard to the region's general paleohistorical context.

Note: The cost of the services for all laboratory work and data analysis must be identified and described. Supporting documents attesting to the cost of these services must be also be presented. In the event that the scope of these services is greater than that identified above, additional services will be paid at cost without mark up or profit and will be justified by invoices/receipts – see clause R1230D (2012-07-16), CG 5-Terms of Payment CG5.12.

3.3 Deliverables

For each project site the Consultant shall:

- Produce a final technical corpus;
- Prepare a preliminary report of research findings, including recommendations for mitigating measures to be taken, for review and approval;
- Prepare a final report of research findings taking into consideration any comments made on the preliminary report; and
- Submit any artefacts, once properly documented and catalogued, for permanent storage.

AS 4 QUALITY CONTROL OF WORK AND SOIL LABORATORY SERVICES

4.1 Description of Services

This section describes the required laboratory services which will help the Consultant during the planning, design and construction phases of the project.

For Île Lapierre, a contaminated soil characterization study was conducted by the firm Inspeccol during the preliminary design phase. The Consultant will be provided with the results of this study.

4.2 Scope of Services

The Consultant shall determine what types of laboratory services are required for the project during design development or construction.

These services may include the activities described here.

4.2.1 Quality Control

With regard to quality control, the Consultant, who is responsible for supervising construction, shall partner with the appropriate professional services for the following (examples):

- Inspect and approve materials/products and shop drawing submitted by contractors.
- Conduct laboratory testing of different materials.
- Supervise the preparation and compaction of subfoundations.
- Supervise laying of foundations and check compaction.
- Oversee the installation of any reinforcements or formwork, if applicable.
- Monitor the quality of concrete delivered to the site by performing slump tests and sampling compression strength, as required.
- Forward complete site and laboratory analyses.
- Submit any deficiency lists, site instructions or clarifications in writing to the Departmental Representative.

4.2.2 Control Over Disposal of Contaminated Soil

With regard to the supervision of contaminated soil disposal, the Consultant, who is responsible for supervising construction, shall partner with the appropriate services (e.g. laboratory services) for the following:

- Ensure that contractors pile backfill in accordance with MDDELLC regulations.
- Ensure proper storage, according to level of soil contamination, on sites for piling soil that are made available to the contractors.
- Ensure, if applicable, that horizons containing more than 50% residual materials are segregated from other soil horizons.
- Take soil samples from stockpiling and residual material sites, if applicable, in order to determine the level of contamination and appropriate management strategies.
- Prepare documentation needed for the transportation of contaminated soil (transportation manifest) and ensure that all loads leaving the site have the proper transportation and disposal permits.
- Send samples to a laboratory certified by the MDDELCC according to the required retention procedure.

-
- Have soil samples analyzed one or more times according to mandatory parameters and dispose of any contaminated soil in accordance with provincial regulations for the disposal of contaminated soil, including:
 - Polycyclic aromatic hydrocarbons (PAH);
 - Metals (13 metals: Ag, As, Ba, Cd, Co, Cr, Cu, Sn, Mn, Mo, Ni, Pb and Zn);
 - HP C₁₀-C₅₀; and
 - Other contaminants.
 - Interpret analyses in accordance with the criteria found in the MDDELLCC and CCMEs policy.
 - Ensure that borrow materials used by contractors respect the MDDELCC's Criterion A.

4.2.3 Additional Characterizations and Geotechnical Studies Required for Design Development

When preliminary sketches or drawings and specifications are prepared, the Consultant may call upon laboratory services to determine the composition and properties of the soil and rock on which structures are to be built. It may also be necessary to take samples of water, soil and sediment and perform chemical and biological analyses.

4.3 Deliverables

Deliverables vary and will be determined by the Consultant in collaboration with PWGSC when requirements are established.

The services described in this section will be subject to a limitation of expenditure as indicated in the Tender Form. Thus, the Consultant does not need to evaluate the cost or the nature of the needs for these services.

The Consultant shall submit a Financial Proposal to utilize the services found in the limitation of expenditure.

This proposal shall include the following items:

- Description of mandate and deliverables (services and products);
- List of persons providing services, including their role, responsibilities and experience with similar mandates;
- Breakdown of work effort by position / hourly rate;
- List of subcontractors, if applicable; and
- Timeframe for fulfilling mandate.

Mandates issued for these services shall not result in any administrative surcharges or profits for the Consultant.

Canada's responsibility to the Consultant is limited to allowance indicated in the Tender Form. Hiring of services must be previously approved by the TPSGC Project Manager.

AS 5 BROWN SNAKE MANAGEMENT PLAN (ÎLE LAPIERRE PROJECT)**5.1 Description of Services**

For the Île Lapierre project, the Consultant shall create a brown snake management plan and take necessary measures before construction to ensure the conservation of the species. The Consultant shall also be responsible for monitoring and ensuring that these measures are respected during the work.

This plan will be used to identify and describe mitigating measures to reduce the impact on brown snakes found in the areas affected by landscaping. It should include all landscaping in sectors that will be renaturalized following construction to allow for the recolonization and survival of the species. Finally, the plan should include a population monitoring program.

5.2 Scope of Services**5.2.1 Management Plan**

The brown snake management plan seeks to clearly identify and describe measures to be implemented before, during and after construction in order to reduce the adverse effects of the project on populations of this species. This plan should identify the sectors where brown snakes will be affected by construction as well as activities with risk of impacting the species. For each sector, there should be a description of the measures to be taken in order to reduce the impact on the population. These measures may be adapted to the sector and potential activities.

As part of this management plan, the Consultant shall determine whether or not it is necessary to set up hibernacula to compensate for habitat loss caused by creating the basin. If hibernacula are required, the Consultant shall describe how to construct them and where they should be placed. Moreover, the Consultant shall develop a population monitoring program to verify the efficacy of measures employed during construction (drift fence, brown snake relocation, etc.) and those taken to recolonize the affected sectors. However, the development of this monitoring program does not fall within this mandate.

If measures must be implemented before the start of work – potentially the season before – the Consultant shall identify them and inform the Project Manager as soon as possible so that they may be implemented in time.

As an Expert Department, the MDDELCC must be consulted (via the Client, INFC). In addition, the Consultant shall refer to the *Protocole pour les inventaires de couleuvres associées aux habitats de début de succession au Québec* (Ministère des ressources naturelles et faunes, 2008).

To develop this plan, the Consultant may wish to draw on the brown snake relocation study carried out for the New Bridge for the St. Lawrence construction project (Groupe Hémisphères, 2014).

5.2.2 Implementation of Actions

Development of a management plan will help identify measures to be taken before beginning construction in order to ensure that the island's brown snake population is protected. These measures may vary considerably, ranging from the installation of a simple drift fence to snake capture and relocation. Once the management plan has been approved, the Consultant shall take any necessary action before construction begins.

During construction, the Consultant shall continue to employ the measures identified in the management plan. Furthermore, the Consultant shall monitor and adjust these measures as necessary to minimize impact on the brown snake population.

5.2.3 Content of the Management Plan

The brown snake management plan shall include, without being limited to, the following items:

- Executive summary;
- Table of contents;
- Introduction;
- Description of the mandate's context;
- Description of activities which may affect the brown snake population;
- Description of measures to be implemented before, during and after construction;
- Proposed work for re-naturalized sites to foster recolonization and conservation;
- Detailed description of measures to be implemented (e.g. snake relocation, installation of a drift fence, etc.);
- Description of methods for installing drift fences and building hibernacula, if applicable;
- Description of snake handling (capture, marking) and transportation, if applicable;
- Description of monitoring program;
- Work schedule;
- Recommendations;
- Conclusions;
- References; and
- Plans, figures, photos and any other pertinent information (inventory methodology, regulations, diagrams showing work, location of fences, snake release points, etc.).

5.2.4 After-Action Report

Following construction, the Consultant shall present a report on the actions taken before and after work. The after-action report shall include, without being limited to, the following items:

- Executive summary;
- Table of contents;
- Introduction;
- Description of the mandate's context;
- Description of activities which may affect the brown snake population;
- Description of measures implemented before and during work;
- Description of snake handling (capture, marking) and transportation, if applicable;
- Results (number of snakes captured, relocated, mortality rates, etc.);
- Discussion of results;
- Recommendations;
- Conclusions;
- References; and
- Plans, figures, photos and any other pertinent information (inventory methodology, regulations, diagrams showing work, location of fences, snake release points, etc.).

5.3 Deliverables

For the Île Lapierre project, the Consultant shall deliver:

- Draft of report on the brown snake management plan in electronic format (Word and PDF);
- Final version of report on the brown snake management plan, including all comments made on the draft, in electronic format (Word and PDF). The Consultant shall produce five (5) hard copies, bound and printed double-sided/in colour, as well as five (5) copies on an electronic storage device in both PDF and native formats (Word, Excel, AutoCAD plans, JPEG photographs, source files, etc.);
- Draft of after-action report in electronic format (Word and PDF);
- Final version of after-action report, including all comments made on the draft, in electronic format (Word and PDF). The Consultant shall produce five (5) hard copies, bound and printed double-sided/in colour, as well as five (5) copies on an electronic storage device in both PDF and native formats (Word, Excel, AutoCAD plans, JPEG photographs, source files, etc.).

AS 6 RESIDENT CONSTRUCTION INSPECTION SERVICES (FOR BOTH PROJECTS)**6.1 Description of Services**

Resident site services aim to ensure that the Consultant's Site Representative is on-site on a full-time basis for the following purposes: to coordinate inspections and testing with other consultants, to inspect and monitor all aspects of construction work, and to act as a liaison with the contractor, PWGSC and other organizations concerning work. More than one person may need assume this role in order ensure that a representative is on-site at all times during construction hours.

The Consultant's Site Representative shall provide on-site inspection services on a full-time basis, including during overtime, for all aspects of the project and shall keep daily records of ongoing construction work. The Site Representative ensures constant communication among the Property Manager, PWGSC, the Project Manager, companies responsible for development, Contractor, Regional Fire Commissioner and the provincial Department of Labour.

The Site Representative reports directly to the Consultant.

The Site Representative shall be entirely familiar with the Contract Documents and knowledgeable of all provincial and municipal standards concerning the health and safety of construction workers.

The Site Representative shall also be entirely familiar with all of the requirements listed in the Consultant's Project Brief and knowledgeable of other stakeholders' responsibilities insofar as they concern resident site services.

6.2 Specific Duties and Responsibilities

The Site Representative shall provide full-time inspection, coordination and supervision services during construction work and shall report to the Consultant. Moreover, the Departmental Representative may delegate additional responsibilities to the Site Representative with the Consultant's approval.

The Consultant's Site Representative shall keep daily records of assigned construction work and ensure constant communication between the Project Manager, the Prime Consultant and the Contractor.

In an emergency, the Site Representative has the authority to stop work or give orders to ensure worker safety or to protect the government.

6.3 Inspection and Reporting

The Site Representative is responsible for inspecting all phases of work in progress and for bringing any discrepancies between the work, Contract Documents and accepted construction practices to the Contractor's attention after having checked with the Consultant and PWGSC Construction Supervisor. The Site Representative shall keep a daily log of these inspections and once a week submit a written report, in the specified format, to the Consultant for distribution. The Site Representative shall prepare any reports or studies as requested by the Project Manager via the Consultant.

6.4 Interpretation of Contract Documents

The Consultant is responsible for interpreting Contract Documents. However, the Consultant may ask the Site Representative to provide information on working conditions and communicate daily instructions to the Contractor.

The Site Representative has a duty to assist the Consultant and inform the latter of any expected problems that may delay work. The method used to communicate this information shall be chosen by the Consultant.

6.5 Changes to Work

The Site Representative does not have the authority to authorize or order changes to work that will modify the construction design or the contract value, unless this authority has been delegated to the Site Representative by the Departmental Representative.

Given that the Site Representative is familiar with the working conditions, the Consultant may ask the former for help in assessing changes made to work.

6.6 Communication and Liaison

The Site Representative shall:

- Communicate instructions concerning required labour standards to contractors;
- Identify defects or work that does not respect the drawings and specifications, report findings to Consultant and obtain instructions from the former. Then, report findings to the Contractor's Field Superintendent. While informal discussions with subtrade supervisors are generally allowed (with the Contractor's permission), the Site Representative should not directly deal with foremen/tradesmen or influence in any way the progress of work;
- Formally communicate with the Contractor through memos only. The Site Representative shall send copies of these documents to PWGSC and the Consultant;
- Immediately contact the Consultant when it is apparent that information from the Consultant is required or that an action is required on his/her part: general instructions, clarifications, approval of a shop drawing sample, requests, authorisation for proposed change, on-site instruction, details, drawings, etc.;
- Accompany PWGSC representatives during inspections and report requirements, observations and instructions from PWGSC personnel to the Consultant. It should be noted that the Site Representative should encourage these individuals to submit their requirements, observations and instructions in writing;
- Examine and assess any suggestions made by the Contractor or any changes that the Contractor would like to make to the documents and immediately report them to the Consultant (include comments in writing);
- Ensure that PWGSC and the Consultant are promptly informed when key elements and/or components of materials or equipment are delivered so that these two parties may arrange to have them inspected by the appropriate personnel before installation.

6.7 Daily Log

The Site Representative shall keep a daily log with the following information:

- Weather conditions, especially those that are unusual relative to construction activities in progress;
- Major material and equipment deliveries;
- Daily activities and important work ;
- Start, stop or completion of work;
- Presence of personnel from inspection and testing firms, tests performed, results, etc.;
- Unusual site conditions;
- Significant incidents, remarks, etc.;
- Special visitors on site;
- Permission given to the Contractor to undertake certain work or hazardous work;
- Environmental incidents; and
- Reports and instructions on emergency measures taken by competent authorities.

Note: This log is the private property of the Site Representative. Copies of the log must be sent to PWGSC and the Consultant at the end of the project.

6.8 Weekly Records

The Site Representative shall prepare weekly reports for the Consultant in the required format and that include:

- Progress relative to schedule;
- Main activities started or finished during the week and those that are in progress;
- Major deliveries of materials and/or equipment;
- Problems which may delay the completion of work;
- Labour and materials needed immediately;
- Cost estimates for completed work and delivered materials (cost and contracts);
- Outstanding information or action required by the Consultant or PWGSC;
- Workforce;
- Weather conditions;
- Remarks;
- Completed environmental monitoring form;
- Accidents on site;
- Threats to the safety of persons or building hazards caused by work, the Contractor or his/her agents.

6.9 Site Records

The Site Representative shall keep methodical and up-to-date records concerning the site for his/her own use as well as for the Consultant and PWGSC as follows:

- Contract and Tender Documents;
- Approved Shop Drawings;
- Approved Samples;
- Samples;
- Site Instructions;
- Requested Change Orders;
- Authorized Change orders;

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- Memoranda;
 - Test and Deficiency Reports;
 - Correspondence and Meeting Minutes;
 - Name, address and telephone number of Client representatives, Consultant and all Contractors, sub-trades key personnel associated with the project (including home telephone numbers in case of emergency);

In addition, the Site Representative shall keep an up-to-date schedule of the progress of work.

A copy of the original contract drawings shall be stored in a safe place and kept up to date will all addenda, change orders, site instructions, details, final terms, etc. issued after the contract award.

6.10 Inspection of Work

The Site Representative shall perform site observations and spot checks of the work to determine whether the work, materials and equipment are in accordance with the Contract Documents and supplementary conditions. The Consultant's Site Representative shall inform the Contractor of any defects or unauthorized discrepancies via memorandum and immediately report any problems that the Contractor is slow to fix or refuses to the Consultant and PWGSC Construction Supervisor.

The Site Representative shall take the steps necessary to ensure that consultants for services in biology, landscape architecture, engineering, etc. may perform periodic inspections required under contract with the Prime Consultant in a timely manner with respect to project progress.

The Site Representative shall also report if any materials or equipment are being incorporated into the project prior to approval of related shop drawings or samples.

The Site Representative shall work with PWGSC and Consultant representatives to draw up preliminary and final deficiency reports. The Site Representative shall also be responsible for ensuring the measurement of all work performed on a unit-cost basis.

6.11 Job Meetings

The Site Representative shall attend all job meetings. There will be at least one job meeting for every two weeks of construction work.

6.12 Inspection and Testing

The Resident Site representative must see that the tests and inspections stipulated in the Contract Documents are conducted; he/she should be present during these tests and report the results in the daily log.

The Consultant must be informed if test results do not meet requirements or if the Contractor fails to properly perform the tests.

6.13 Emergencies

In the event of an emergency threatening property, the environment or the safety of persons, or should the progress of work be compromised by activities under the Contractor's control, the Site Representative must immediately inform the Contractor in writing of any possible danger in order to safeguard PWGSC interests. Moreover, if necessary, the Site Representative shall stop work, coordinate corrective measures and contact the Consultant to obtain further instructions.

6.14 Restrictions

The Site Representative shall not:

- Authorize deviations from the Contract Documents;
- Conduct tests;
- Approve Shop Drawings or Samples;
- Advise the Client / User on any aspect of the project without first being instructed by the Consultant to do so;
- Approve work or any part of the site;
- Infringe upon the area of responsibility assigned to the Contractor's Field Superintendent;
- Stop work, unless convinced that there is an emergency, as described above.

6.15 Hazardous Construction Work

It is the Site Representative's responsibility to review all work methods to be used by the Contractor and site conditions that involve hazardous work.

The Site Representative shall only provide the Contractor with written authorization to carry out hazardous work once he/she is fully convinced that all necessary precautions and measures have been taken by the former to ensure the safety of workers/building occupants and the safeguard of government property. This written authorization must be countersigned by the Contractor, confirming that the Site Representative's instructions and requirements are understood; both parties shall keep copies of the authorization document signed by each party.

The Site Representative shall inspect sectors where hazardous work is carried out to ensure that the Contractor complies with the agreed safety standards. Any violation of these standards may lead the Site Representative to decide to halt construction. The Site Representative shall report, in writing and orally, any violations or work disruptions that he/she has ordered to the Consultant and PWGSC Construction Supervisor.